00083661

BOMBAY BRANCH
OF THE
ROYAL ASIATIC SOCIETY
TOWN HALL, BOMBAY.

Digitized with financial assistance from the
Government of Maharashtra
on 18 July, 2018

# FIFTEEN THOUSAND MILES

ON THE

# AMAZON AND ITS TRIBUTARIES.

83661

BY

C. BARRINGTON BROWN, Assoc. R.S.M.,

AUTHOR OF 'CANOE AND CAMP LIFE IN BRITISH GUIANA,'

AND

WILLIAM LIDSTONE, C.E.

With Map and Wood Engravings.

LONDON:

EDWARD STANFORD, 55, CHARING CROSS, S.W.

1878.

00083661

# PREFACE.

the autumn of 1873 the Amazon Steam Navi-
ion Company (Limited) of London sent out an
edition, for the purpose of selecting and reporting
n certain territories, allotted to them by the
vernment of Brazil, on the banks of the Amazon
nd several of its tributaries. The authors of this
book acted, one of them in the combined capacities of
and Geologist, and the other of Civil Engineer
Draughtsman. Mr. W. H. Trail, who performed
uties of Botanist and Medical Adviser, completed
aff.

though scarcely two years in that country, the
rs were enabled, through the great facilities for
l afforded them, to see more than others visiting
regions, with ordinary means at their disposal,
hope to do in five.

the course of their journeys, which extended over
than 15,000 miles, they met with many amusing
nts, interesting characters, and mild adventures,
were duly recorded in their note-books during
e moments.

In the hope that it may not prove uninteresting to the reading public, they have from these notes framed the present volume—not intended to be in any sort a scientific work, but simply aiming at giving, in a sketchy way, some graphic pictures of scenes, persons, and circumstances, as they found them in the valley of this Great River.

LONDON, *November* 1877.

# CONTENTS.


## CHAPTER I.

### AT PARÁ.

Land in sight — Desolate Expanse of River Ocean — Arrive at Pará — Hotel do Commercio — Lizards — The Streets — Steam Tramway — Struggle maintained by Vegetable Life — Street Types of Human Nature — Strange Costumes — Urubus .. .. .. .. Page 1

## CHAPTER II.

### FROM PARÁ TO MONTE ALEGRÉ.

Description of an Amazon Steamer — Breves — Network of Natural Canals — Porto do Moz — Sun-burnt Fowl — Land at Monte Alegré — Our House there — The Town of Monte Alegré — Its deserted Appearance — Its Prison — Pirarucu — Heat — The "Rock Scorpion" — Raid upon Goats — Hit the wrong Mark — Our Sleeping Arrangements — Our Interpreter's dread of Insects .. .. .. .. .. .. .. 12

## CHAPTER III.

### EXCURSIONS FROM MONTE ALEGRÉ.

Start for Ererê — Amazonian Horses at Paisaja — Ererê Village — Ancient Indian Rock Paintings — Levremont Fasenda — Mosquitoes — About an Onça — View from Paraiso — Singular Conduct of Interpreter's Horse — Two other Adventures with our Horses — King Vultures on the Summit of Ererê Mountain — Adventure with Wasps — Pytoona — Sketch of Geology of Ererê — Getting Home on an Ox-cart — Journey to Tajuré Mountain — Sketch of Geology of Tajuré — Lose ourselves in returning — Second Visit to Tajuré — Attempt to Ascend the Ererê River — Alenquorns .. .. .. .. .. .. .. 28

## CHAPTER IV.

### AT PRAINHA.

Leave Monte Alegré — Arrive at Prainha — Description of Prainha — Mirage — The Village Tailor — Our Quarters — "Jack-Spaniards" — Slave offers himself for Sale — Our First Dinner at Prainha — Are visited by a Snake — Postal Arrangements — Our Interpreter — Surveying in the Bush — Adventure with Ant-eater — Insect Pests — Our little Boy Waiter — The Village Church — Its Service — Female Costumes — Virulent form of Fever visits Prainha .. .. Page 57

## CHAPTER V.

### EXCURSIONS FROM PRAINHA.

Start for Jauari River — Strange Crew — Frightened Dog — Negro Dwelling — Difficulties with Crew — Casa de Bicho — Return Journey — Second Journey from Prainha — Paruaquara River — A Wasp in Boat's Cabin — A Fasenda — Swallow's Nest — A Cacoal — Third Journey from Prainha — Crossing the Amazon — Uruara River — Senhor Gomez's — Monkeys — Night Alarms — Adventure with Wasps — Return to Prainha .. .. .. .. .. .. .. .. 86

## CHAPTER VI.

### AT SANTAREM.

Leave Prainha — Ascending the Amazon — Arrive at Santarem — A Stroll through the Town — Unmilitary Proceeding — The Streets — Townspeople — Salutations — Strange Cookery — Food — Vegetable Boy — Our House — Bathing Places — The 'Natal' — The Band — A Fashionable Marriage — Sign of Rainy Seasòn — One of our Portuguese attacked with Fever .. .. .. .. .. .. .. .. .. 109

## CHAPTER VII.

### EXCURSIONS FROM SANTAREM.

The 'Helvetica' — A *Fiasco* — Old Slave at Santa Anna — Vanquish Dogs — The Barreiras — Gigantic Toad — Bacaba Drink — Accidents on last Night of the Year — Freaks of little Indian Slave — Drunken old Nigger — Sailing on the Tapajos — Alter do Chão — Eccentric Individual — A Native Ball — Fire-ants — Aramanahy — Saüba

Struggle — Dangers in a Tropical Storm — Adventure with a Labba — View from Alter do Chão Hill — The Judge — History of American Settlement — From Santarem to Obidos .. .. .. .. Page 125

## CHAPTER VIII.

### SURVEYING ON THE TAPAJOS.

Preparations for Journey on the Tapajos — A Night at Alter do Chão — The Eccentric Individual again — Encamped at Jurucui — Boat sinks — Bees attack Sugar — Bindobaldoreis — Night Adventure — Downpours — Semi-tame Eagle — A curiously chosen Camp — Tremendous Thunderstorm — Camp alongside Dead Porpoise — Kindness of old Indian — Portuguese Trader — Start on Return Journey — Difficulties encountered — Warning Signals of Frog — Night of Suspense off Cururu Point — Santarem in sight — Meet last and heaviest Storm — Reach Santarem — Rejoin Head-quarters of the Commission .. 158

## CHAPTER IX.

### AT OBIDOS.

An Interloper — Discordant Noise — Itinerant Musicians — Town of Obidos — Old Indian Chapel — The Forts — Landing Cattle — Arrival and Departure of Vessels — Our Next-door Neighbours — We are taken for "Sewing Machine Menders"—Our Hired Boy — A Homesick Portuguese — Depressing Weather — Adventure with Centipede — "An Englishman from Ipswich" .. .. .. .. .. .. .. .. 190

## CHAPTER X.

### EXCURSIONS FROM OBIDOS.

Leave Obidos for Trombetas — Our Crew work badly — The Botanist falls through an Oven — Arrive at Iripixy — Gulls feeding on Flying Ants — Vegetation bordering Lakes on Igapo Land — Our Steersman's Gun falls overboard — Ascend Trombetas to Lake Caypuru — Spreading a New Canoe — Dread of the Evil Eye — Caught in Rainstorm — Return to Obidos — Visit Serra de Escama — Indian Picture-writing — Are joined by the Engineer — Our Steam Launch arrives .. 204

## CHAPTER XI.

### ON THE TROMBETAS.

The 'Beija Flor' — Captain and Crew — Death of José — Start for the Trombetas — Scenery of the River — Night on board the Launch — Entrapped in a *Cul-de-sac* — S. Antonio — Lake Arapecu — Brazil

Nuts — Lake Jukiri — The Isle of Diamonds — Lake Tapajem — Two poor old Negroes — The Launch aground — The Cataract — Runaway Slaves — Return — Scientific Rivalry — Palms — Adventure with a Tiger — Lake Sapukia — Obidos again .. .. .. Page 220

## CHAPTER XII.

### ON THE TAPAJOS.

Journey to Santarem — Unfailing Topic of Conversation — Rocked on the Waves — Itapauama — A Scare — Aveiros — Scenery of Tapajos — Beds — Uricurituba — A Strange Character — Itaituba — Purchase of a Pig — Maranhãozinho Cataract — A New Pest — Tattooing — Fasendas — Geology — Sugar Plantations — A Fish Pond — Haunted — Festal Dinner — Pignel and Boim — Severe Storm — Return to Santarem — Excursion up the Ayaya — Network of Channels — News from Home .. .. .. .. .. .. .. .. .. .. .. 243

## CHAPTER XIII.

### ON THE JURUTY.

Leave Obidos — Parana-mirims — Parentins Hill — Site of Ancient Indian Village — Escaping from Mosquitoes — Lake Juruty — Receive Visitors — Anchor off Juruty Village — Purchase Fruit — Strange Signatures to Receipts — Moonlight View — Service in the Church — Remark of Irrepressible Little Man — Visit Ball Room — Our Irrepressible Friend accused of Theft — Energetic Dancing — Arrive at Villa Bella — Description of the Town .. .. .. .. .. .. .. .. .. 267

## CHAPTER XIV.

### ON THE JAMUNDÁ.

Leave Villa Bella for the Jamundá River — Intricate Geography of its Mouth — Night in the Caldeirão — Lake Maracaná — Faro — Wide Distribution of Bottled Ale — First Cruise up the Lake — Dinner and Dumplings — A Monster Spider — Second Trip on Lake — Abowucoo — An Empty Coffin — The Great Aguadua — Wild Conjectures — Entertainment at Villa Bella — Swept Adrift in the Night — Up the Amazon to Cararaucu — Capella — A Wily Jew — Arrival at Serpa — Inspection by Custom House Officer — The Town — Tiny Newspaper — Lake Serpa — "The Fighting Téméraire" .. .. 282

## CHAPTER XV.

### ON THE MAUHES AND ABACAXIS.

The Ramos Parana-mirim — Enter the Mauhes River — Mauhes Village — A Guaranazal — Guarana — Mucaja Aldea — Mundurucu Indians — Different Phases of the River — Laranjal and its Inhabitants — Pacu-assu Çataract — Sketch Geology of the Mauhes — The Botanist meets with an Accident — Ball at Mucaja — "Caracajas" — Frighten the Inhabitants of Camarão — Run some Risk of being blown up — Senhor Rosa — The Abacaxis River — Our Mundurucu Pilot — Incidents in connection with Three Old Men — Our Dinner at Abacaxis — Flights of Mayflies — Unfortunate Thrushes.. .. Page 304

## CHAPTER XVI.

### ON THE MADEIRA.

Size and Character of the River Madeira — Borba — Festival of the Ascension — Legend of Sapukia-oroka — Difficulty with Fuel — Novel Ant's Nest — Esaltaçion — Adventure with Butterflies — Rainbow, Thunderstorm, and great Variations of Temperature — A Bad Place for Mosquitoes — Starving Crato — Plentiful Humayta — Incidents of Navigation — Savage Indians — S. Antonio — Death of Mr. Davis — The Madeira and Mamoré Railway — Unhealthiness of the District — Incidents of the Undertaking — The Doctor busy — Start for Return — Jamary — Bolivians — Lakes of Antonio — River Marmellos — Forest of the Madeira — Bird Life — Geology — Designing a Church — Centipedes — Manicoré — Discovery of an Aunt — Ridiculous situation of the Commission at Tabocal — Reach the Amazon — Peccary — Reach Manaos .. .. .. .. .. .. .. .. .. .. .. .. 327

## CHAPTER XVII.

### ON THE RIO NEGRO.

The Rio Negro above Manaos — Pedreira — Lieutenant's Account of Indian Attacks upon Pedreira — Savage Tribes on the Jaupiri — Pass Mouth of the Rio Branco — Carvoeira — Strange Dance — Get Pilot at Caburie — Sad Fate of Crew of Sunken Craft — Dangerous Passage — Barcellos — Visit the Priest and an Official — Spend a Pleasant Evening — A Little Semi-wild Indian — Old St. Isabel — Commence Return Journey — Padawiry River — Piassaba — Revisit Barcellos — Fever about — Dark Individual — Night Monkey — The 'Beija Flor' charges the Forest — Fever at Ayrão — Arrive at Manaos .. .. .. .. 360

## CHAPTER XVIII.

### AT MANAOS.

The 'Beija Flor' exchanged for the 'Guajará' — Delay in fitting her out — Description of Manaos — The Cathedral — The President of the Province — Live Peixe-boi — Hoisting the Ball at Noon — Protestant Services — Dr. Lee's Mission — His Colleague — A Strange Invitation to Breakfast — Pic-nic on the Tarumá — Water-fall — Ludicrous Scene — Start for the Company's Territory — Camp at Marapatá — Variety of Pests — Life in the Forest — The Engineer stung by a Scorpion — At Death's Door — Break up Camp — Stung by Caterpillars — Large Toad and Worm — Trovoado on the Negro .. .. .. .. Page 389

## CHAPTER XIX.

### ON THE PURUS.

The 'Guajará' ready — Trial Trip — The President on Board — Description of Steamer, Captain and Crew — Leave Manaos — Winding Rivers — Purus Scenery — Night on the Praias — Landslips — Tiger — Fishing — Catching Turtles — Pamary Indians — Singular Disease — The "Doldrums" and "Roaring-forties" — Piums — Process of Manufacturing India-rubber — Character of Men employed in the Trade — Mabidiri — Cursed by an Old Man — Meeting with Mr. Piper — A large Landowner — Silk-cotton Trees — Geology — Freaks of the River — Monkeys .. .. .. .. .. .. .. .. .. .. .. .. 418

## CHAPTER XX.

### ON THE JURUA AND SOLIMÕES.

Valley of the Solimões — Coary — The Village School — Teffé — The Judge — Blown-up Launch — Drunken Fireman — Singular Palms — Enter the Jurua — Juruapuca — Piums and their Enemies — Orinooco Geese — A Coloured Englishman — Dirt-eating Children — Rubber Season — Reach Urubu Caxocira — Commence Descent of Jurua — Savage Indians — Re-enter Solimões — Fonte Bôa — Learn of sad Death of Dr. Lee — Ipadu Chewers — Tonantins — S. Paulo — Hospitality of Officers at Tabatinga — Geology of the Solimões .. 448

## CHAPTER XXI.

### ON THE JAVARY.

Start for the Javary — Death of "Miss Squeers" — Character of the River — Purchase a Barrigudo — Canamá — The ultimate Point of our Journeys — The *Lingoa Geral* — A Tiny Marmozet — A Love Story — Piririca — Geology — Down the Solimões — Caldeirão — An Unlucky Day — Looking for the Chief's Slipper! — News at Teffé — Lake Cayambe — A Laughable Contretemps — Arrival at Manaos Page 478

## CHAPTER XXII.

### ON THE JUTAHY, AND BACK TO PARÁ.

Refit our Ship — Christmas Dinner — Our Interpreter resigns his Post — Start for the Jutahy — Morosocas — Enter the Jutahy — Its Tributaries — Native Indian Tribes — Rubber Collectors — Barreiras Alta — Death of the Monkey called "Bismarck" — Description of the Monkey named "Phillipe" — Descend the Jutahy and Solimões — Leave Manaos — Descend the Amazon to Pará — Our Travels terminate — The Botanist leaves for England — The Engineer soon follows — The Chief finally takes his departure — Concluding Remarks .. .. 497

# LIST OF ILLUSTRATIONS.


MANAOS .. .. .. .. .. .. .. .. .. .. .. .. *Frontispiece*

AN URUBU .. .. .. .. .. .. .. .. .. .. .. *Page* 11

DIAGRAM OF MIRAGE .. .. .. .. .. .. .. .. „ 59

EXTERIOR OF PRAINHA CHURCH .. .. .. .. .. .. „ 80

INTERIOR „ „ .. .. .. .. .. .. „ 81

SWALLOW'S NEST .. .. .. .. .. .. .. .. .. „ 96

OBIDOS .. .. .. .. .. .. .. .. .. .. .. *To face page* 194

INDIAN PICTURE-WRITING .. .. .. .. .. .. .. *Page* 218

DECK OF 'BEIJA FLOR' .. .. .. .. .. .. .. „ 221

THE TROMBETAS FROM NEAR MOUTH OF LAKE CAYPURU *To face page* 226

THE TAPAJOS FROM AVEIROS .. .. .. .. .. „ „ 248

LADY AT A BALL AT MUCAJÁ .. .. .. .. .. .. *Page* 316

BARCELLOS .. .. .. .. .. .. .. .. .. .. .. „ 371

NIGHT MONKEY .. .. .. .. .. .. .. .. .. .. „ 383

PEIXE-BOI .. .. .. .. .. .. .. .. .. .. .. .. „ 395

CAMP AT MARAPATÁ .. .. .. .. .. .. .. *To face page* 408

THE 'GUAJARÁ' .. .. .. .. .. .. .. .. .. „ „ 418

SALOON OF 'GUAJARÁ' .. .. .. .. .. .. .. .. *Page* 422

DECK OF „ .. .. .. .. .. .. .. .. .. „ 423

RUBBER SMOKING APPARATUS .. .. .. .. .. .. „ 437

STEM OF A SILK-COTTON TREE .. .. .. .. .. *To face page* 444

MATA-MATÁ .. .. .. .. .. .. .. .. .. .. .. *Page* 461

CANAMÁ .. .. .. .. .. .. .. .. .. .. .. *To face page* 484

COSTA MUTUM .. .. .. .. .. .. .. .. .. .. „ „ 503

MAP .. .. .. .. .. .. .. .. .. .. .. .. .. .. *At end*

# FIFTEEN THOUSAND MILES

ON THE

# AMAZON AND ITS TRIBUTARIES.

## CHAPTER I.

### AT PARÁ.

Land in sight — Desolate Expanse of River Ocean — Arrive at Pará — Hotel do Commercio — Lizards — The Streets — Steam Tramway — Struggle maintained by Vegetable Life — Street Types of Human Nature — Strange Costumes — Urubus.

To voyagers who have been some weeks at sea there is usually no pleasanter announcement than that dinner is ready, but on the 11th of October, when the steamship 'Paraense,' in which we were passengers, had been nineteen days from Liverpool, a cry was raised, simultaneously with the sounding of the dinner bell, which powerfully competed even with its melody in attractiveness. Land was in sight!—so the cry ran, and many lingered on deck for a few minutes peering through glasses, or straining to the utmost their natural powers of vision to try and get some more definite conception of its form and distance. It was such a faint far-off line, however—so far away, dim and shapeless—that the dinner speedily reasserted

itself as of more human interest for the moment, and the deck was deserted.

Two hours later we were off Salinas Lighthouse, where by this time the shadowy having assumed distinctness, we were able to take what to two of our number was a first good look at a bit of South America, consisting of a low stretch of white sandy shore. On this day we had run from deep blue sea into light green water, and on the following morning were steaming along in the muddy estuary of the Pará river. Now and then we passed patches of floating driftwood, composed of logs and tree branches, riding swiftly out to sea with the tide. Not a sail of any sort was visible to enliven the scene and relieve the wild and desolate appearance of this vast expanse of river-ocean. A low-lying strip of coast fringed with trees lay out upon our left; dirty looking water lashed into short angry waves by a strong south-east trade breeze, appeared on every other hand; while dullish coloured clouds floated overhead in the somewhat hazy atmosphere. Soon we sighted the forlorn looking light-ship, marking the Braganza Banks, and afterwards passed close to her as she rolled uneasily on the short chopping sea. Gradually as we steamed up the winding channel, the scene became of a more cheerful character. Houses appeared here and there upon the shore, while the forest assumed a more decided green, and was so close at hand that we were able to distinguish the feathery tops of those most characteristically beautiful features of a tropical forest —the palms, as well as other of the more prominent trees. At length the river seemed suddenly to

narrow, but was in reality divided into two streams by a chain of islands which we continued to pass in constant succession on our right, until we dropped anchor off the city of Pará, known to the natives by the high-sounding title of Santa Maria Belem do Grão Pará. Very inviting was its appearance from the harbour, and it may be easily understood that we lost no time in going ashore with an official of the Amazon Steam Navigation Company who had come on board to receive us.

Pará has been so often described by travellers that it does not come within our province to give a minute account of the city, but rather to strike off some of those peculiarities which are most likely to engage the attention of one who has newly arrived from a country lying within the temperate zone.

The Hotel do Commercio, which extended to us its accommodation so far as to provide us with excellent meals, and which was the only one of any pretension in the city, had a strange look to English eyes. The uninviting entrance led through a high arched doorway, up a wide wooden staircase, into an open balcony surrounding a dirty courtyard. A long passage followed, which led into a spacious dining-room—the principal apartment of the hotel. Though only whitewashed, and furnished with the plainest chairs and tables, it had a cool and comfortable look in this hot climate, and its great height made it almost imposing. The outlook from the three windows of this room was very pleasing, especially at sunset, commanding the whole of the harbour, and the wooded islands which shut it in. The fleet of steamers

belonging to the Company, scattered amongst the other shipping in the port, painted red and white to suit the climate, added a welcome touch of colour to the scene. A fine fresh breeze usually blew up the river, and we greatly enjoyed sitting at the open windows at sunset, watching the view until it had faded into darkness.

Nothing in connection with this apartment indicated more strikingly that we were in a strange land than the disgusting looking, drab-coloured lizards, which, emerging from their hiding places after twilight, chevied each other over the walls and ceilings. It afforded us no little amusement, on the first evening of our stay, to endeavour to capture some of these creatures by delivering a volley of table napkins at them; but their feet being so well adapted for clinging to the wall, we were unable to dislodge them. This sport had to be abandoned at 8 P.M., when, strange as it may appear, the guests were compelled to leave the hotel, as the gas-lights in the dining room—the only public apartment which the establishment contained—were extinguished by the waiters at that hour.

Thus driven nightly into the streets, which afforded but little entertainment, we usually retired to the landing, and took boat to our quarters on board the steamer 'Belem,' which had been temporarily assigned to us by Senhor Pimenta Bueno, the able and obliging agent of the Company in Pará, in consequence of our inability to obtain lodgings at the hotel.

As we sat in the 'Belem's' saloon, writing and chatting before retiring to rest, we were much puzzled by a mysterious noise, which was heard at irregular

intervals every night. .It resembled a slight explosion against the bottom of the ship, producing a vibration of the air in the hold, and filling the whole ship with a weird ringing sound. We never heard this peculiar noise when lying at anchor in any place we subsequently visited; but similar sounds have been described by travellers visiting the port of Greytown, which have been variously ascribed to the agency of a certain species of fish, and to bubbles of gas produced by decaying vegetable matter.

The greater portion of each day was occupied in making preparations for our journey up the river; but in the afternoon we usually took a constitutional through the city, or into the suburbs. The streets are not imposing, being full of deep ruts, and for the most part unpaved. Some of them are made almost dangerous for carriages and foot-passengers, in consequence of their being traversed by the rude rails and sleepers of a steam tramway line, running from the fashionable suburb of Nazareth to an open space near the cathedral. Late one evening we took advantage of this conveyance for the purpose of testing its merits, and for our temerity sustained a severe jolting. We took our stand near the track at the corner of the Largo da Polvora, to intercept it on its homeward journey, and heard the noise of its puffing and whistling a quarter of an hour before it steamed up. It occurred to us that the thing had run off the line, thereby hopelessly impounding itself in some one's back yard; we therefore felt relieved on seeing its glaring lights, as it rounded a corner, and ran into full view. One would imagine that such a noisy

monster would at least require to be hailed through a speaking trumpet, or challenged by the brandishing of a red flag, before it could be stopped; but upon the waving of our umbrellas, a struggle was seen to take place between the engineer and the machine, resulting in a victory to the former, which brought the whole affair to a stand-still, sooner than might reasonably have been anticipated. The train consisted of a high-pressure engine, looking like a huge black bottle on a covered truck, and two cars: an open one for second-class passengers, and a closed one, better finished, for the first class. These were coupled together by iron rods five or six feet long, so that the various parts of the train seemed to be holding each other at arms' length.

As soon as we had stepped on board we were whirled through the town, getting into the principal street by a long narrow alley, where it appeared as if the carriages almost touched the fronts of the houses on either side. It was necessary for the little locomotive to keep up a constant screaming to warn every person to get out of its way—a matter of no little difficulty in this narrow place. What with the whistling and snorting, the dense masses of black smoke filling the streets, and the red-hot ashes falling from the furnace, the traditional calm stillness of a tropical night seemed to be completely outraged. Any one in search of an entirely new sensation cannot do better than go to Pará, and take a trip on the steam tramway.

But the most singular circumstance respecting this institution is, that its dirty, well-thumbed tickets pass

current in Pará shops for their full value of twopence halfpenny each. It somewhat surprises a foreigner, on making a purchase in a shop for the first time, to receive amongst his change, besides the usual paper currency, and some heavy copper coins (called *dumps* by sailors), a quantity of these small dirty cards, resembling in shape and size the ordinary railway ticket.

One of the most noticeable things in the city is the constant struggle maintained by vegetable life to recover the ground from which it has been previously expelled by the encroachments of civilization. Every lane, yard, and square, is a battle-ground between man and the progeny of the original forest. Even the roofs and cornices of some of the public buildings are occupied by plants and small trees, which from their elevated positions—like flags planted by the advance guard of the general enemy—wave their tops defiantly. One large square was pointed out to us as having been cleared and turfed five years previously. When we looked upon it we saw nothing but tangled masses of vegetation fifteen feet in height, and denser than the growth of the virgin forest. It was impossible to recognize it any longer as a square.

Whichever street leading inland one may choose as a starting-point for a ramble, eventually brings him to the wall of tropical forest, which hems the city in with an almost impassable barrier of giant trees, graceful palms, and tangled masses of creepers. This forest margin is gay with bright flowers and the fluttering of numerous brilliant butterflies. Pass it, however, and the warmth of colouring and painted

forms of active life are left behind, while nought but gloom, with unnatural stillness, prevails. High overhead leafy branches meet together, almost excluding the sun's rays, while under foot the damp ground is strewn with a covering of decaying leaves.

A stroll through the streets of Pará is rendered interesting by the numerous types of human nature to be met with, resulting from the intermixture of the Portuguese, native Indian, and Negro races. One never meets the ladies of the upper classes promenading or shopping as in European towns, but their humbler sisters seem almost to live in the open air, and to obtain their living by the vending of fruits, sweets, and other wares. Here and there may be seen one of pure negro blood, with close-cropped crisp wool, unhidden by the starched bandana so common in the West Indies. More numerous than these are the women of pure Indian origin, characterized by their long straight hair and sallow complexion. Most numerous of all are the Cafuzos—the offspring of the last above-mentioned races. These are decidedly agreeable looking, their dark rich-toned skin giving them a fine healthy appearance, and their frizzled hair, usually well brushed back, stands out some six inches or more all round their heads. They are lightly clad in coloured cotton dresses, short, low-necked, and sleeveless, and for ornaments they wear red coral necklaces and bracelets. A bunch of white flowers—usually double jasmine—tastefully arranged in their hair, adds a pleasing feature to their toilet.

Let it not be supposed that we were entirely captivated by these enslavers, for every charm they

possessed fled, when we beheld them indulging in the luxury of a tranquil smoke, through the medium of their long, wooden-stemmed tobacco pipes. It is not pleasant to contemplate the thought that many of these women were slaves, and that the bunches of flowers and trays of sweets they were selling, had been made up by their mistresses, who had resorted to this method of obtaining a little pin-money.

Many little children are seen playing about the doorsteps in a state of nudity; while others of larger growth are very lightly clad indeed. We saw one youth whose sole attire consisted of a pair of patent leather boots, and bright blue socks; but the greatest curiosity we witnessed in the way of costume was in the case of a young man, whose dress had apparently once been a light-coloured suit, of which but little now remained. His jacket consisted of a collar, a bottom hem, and the various seams joining them; while his trowsers had a waistband with a pendent fringe, seams down the sides, and bottom hems. Such a costume more nearly resembled a harness than a dress, but at least had the advantage of being cool and airy.

The Cathedral and Custom House of Pará are imposing buildings, and the new theatre, upon which a large sum of money has been expended, is an ornament to the city, but appears to be very little used. Whilst viewing this latter structure one afternoon, we witnessed a curious case of seemingly wilful suicide committed by a turkey buzzard, which came flying across the square, and dashed itself with such impetuosity against the large white building that it fell

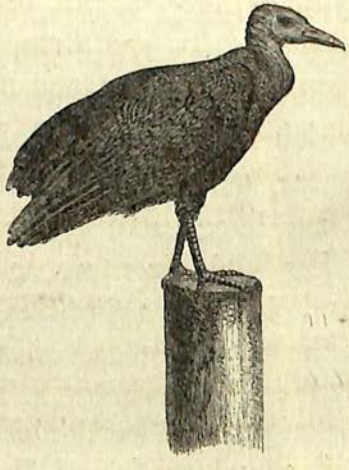
instantly dead at our feet. Upon examination it was found to be swarming with a singular winged parasitical insect of a disgusting appearance, resembling a flattened house-fly.

These Urubus or turkey buzzards, though filthy creatures, are invaluable in a tropical country, and such is the nature of the services which they perform, that it is difficult to understand how health, or even life, could be long maintained without them. Should anyone interested in social science inquire of us what are the sanitary arrangements of an Amazonian city, town or village, we would unhesitatingly reply with the one word—Urubus. In Pará they may be seen perched in rows upon almost every housetop, or struggling with each other for their *dainty* food in the back streets. After a tropical shower, or in the early morning when their plumage is wet with dew, they stand erect drying their outspread wings, and present somewhat the appearance of an ornamental ridge-tiling along the roofs. To see them, however, in the greatest number and perfection one must pay a visit to the general slaughter-house, some two miles distant, down the river. There they swarm on the top of the building, on the rails of the cattle pens, in the branches of the adjoining trees, and upon the narrow fore-shore. Numbers are also continually circling in the air over this, to them, attractive spot.

Lest anyone should be unacquainted with the appearance of these useful scavengers, we here insert a sketch of one at rest, but which does not give any idea of the singular look presented by them, when hopping along with their awkward sidelong gait, contrasting comically

with the wise aspect lent to them by the horny covering of their heads and necks, which is not unlike the wigs usually worn by lawyers.

For the rest Pará, with its population of 35,000, is a thriving city, and its importance as a port is likely to be still further increased, as the trade of the Amazon becomes developed. It is a singular fact that although not on the borders of the great river, it nevertheless controls the entire commerce of the Amazon valley—a privilege, which, judging from the map, one would suppose should naturally accrue to its rival Macapa, a town on the north bank of the Amazon itself. This is owing, we imagine, to the rapidity of the currents in the mouth of the Amazon, and the consequent continual shifting of its sand banks, rendering it more easy to enter the river by a kind of side door than through the more difficult navigation of its front entrance.



AN URUBU.

## CHAPTER II.

### FROM PARÁ TO MONTE ALEGRÉ.

Description of an Amazon Steamer — Breves — Network of Natural Canals — Porto do Moz — Sun-burnt Fowl — Land at Monte Alegré — Our House there — The Town of Monte Alegré — Its deserted Appearance — Its Prison — Pirarucu — Heat — The "Rock Scorpion" — Raid upon Goats — Hit the wrong Mark — Our Sleeping Arrangements — Our Interpreter's dread of Insects.

NOTHING can well be more agreeable than a trip up the Amazon in one of the Company's steamers, constructed, as they all are, with due regard to the requirements of the climate, and the comfort of the passengers. Their principal feature is a covered upper deck forming an airy saloon, open on all sides to every breeze that blows, but capable of being protected from storm and sunshine by the lowering of the canvas curtains with which they are provided. A long table occupies the centre, at which meals are served, and, at the corners, are huge earthenware jars in wooden frames, containing drinking water—an article in continual demand in this thirsty climate. In the spaces between the table and the sides of the saloon, the passengers suspend their hammocks, in which they sleep during the night, and recline during the entire day, lazily swinging backwards and forwards. In this way it is possible to enjoy, absolutely without fatigue, the panoramic views of the banks and islands, which

gradually unfold themselves as the steamer holds her onward course—at times almost brushing the branches of the trees along the river banks, and at others traversing wide open reaches. For those who prefer berths in a less airy situation there are spacious cabins on the main deck, off a large saloon, behind which is a comfortable ladies' cabin. Bath rooms, and every necessary accommodation for both sexes, are provided. The bright colouring of the steamers, painted throughout in red and white, not only imparts additional coolness, but contrasts admirably with the sombre green foliage of the forest.

It was in luxurious circumstances such as these that we commenced our journeyings up river, after a stay of only six days in Pará; but, before starting, it had seemed desirable to select some name by which we might be collectively known during our travels. Senhor Bueno accordingly invented and bestowed upon us the title of the *Commissão Geologico*—the Geological Commission—under which sobriquet we soon became widely celebrated, and are perhaps destined to figure through future ages in the legends of the Amazon. A red flag was at the same time put into our hands that we might be enabled to stop, by hoisting it, when occasion required, any passing steamer belonging to the Company; while a circular, issued to the various captains, directed them to attend to our signal, and supply us with provisions, take charge of our letters, or render any assistance that might be needed.

When morning broke, after our midnight departure on board the 'Belem,' we found ourselves steaming

past the mouth of the Tocantins river, with water horizons both before and behind us, along the wide spreading Bay of Marajo—a sea-like expanse, in which the waves are often of dangerous magnitude. In the afternoon we entered a narrow part of the channel, broken by small islands, where we ran close to one bank, and were able to see that the land was swampy, covered with dense forest, and not elevated more than one foot above high-water mark. At 5 o'clock the small village of Breves was reached, where, after the hawsers of the steamer had been made fast to trees, we proceeded to take in wood for the ship's furnaces. Captain Talisman of the 'Belem,' who spoke English fluently, and was exceedingly obliging, accompanied us ashore, and introduced us to the principal inhabitants of the place.

The village is small and exceedingly dilapidated, many of its houses having fallen so much into decay that only posts and rafters remained, overgrown with trailing plants and creepers. An extensive series of streets, laid out with great regularity, had been formed on land cleared from forest at the back of the place; but, either owing to the ravages of an epidemic fever which had shortly before carried off a large portion of the inhabitants, or the diversion of the indiarubber trade of the village into another channel, these roads were never built upon. Perhaps the most singular structure in Breves was the rickety prison, standing in an open space near the landing, constructed of upright posts placed a few inches apart, and resembling a wooden cage. Here were incarcerated some ten or fifteen individuals, amongst

whom, we were told, were two who had committed murder, but all of them presented a mild appearance, and it was difficult to guess which could have been guilty of such a terrible crime. It appeared to us that it would have been easy to effect an escape, had they wished to do so, for many of the posts were almost eaten away with decay at the surface of the ground, and required nothing more than a strong push to dislodge them, but being well fed and sheltered, the prisoners seemed quite content to remain where they were. The soldiers who should have been guarding them had stacked their guns at the gaol door, and were earning a trifle by assisting to hand the wood on board our steamer. They only strolled back to their charge when this job was completed.

Night had set in when we cast off the hawsers and resumed our journey through that remarkable and confusing network of natural canals, which connect the waters of the Amazon with those of the Pará river. These channels are of immense depth, and so narrow and winding that steamers, to avoid collision, are obliged to follow one set in ascending and another in returning. It was a singular sensation to stand on the deck of a large steamer in the glimmering starlight, and find ourselves carried, seemingly through the heart of the forest, in such diminutive water lanes that in some places both paddle-boxes were swept at the same moment by the protruding branches of the trees. Fire-flies glanced and sparkled along the gloomy wall on either hand, while the chorus of crickets and tree frogs could be heard above the noise produced by the beat of the engine and paddles. Here and there

we swept past a solitary house, standing on piles at the water's edge, the safety of which appeared to be endangered by the waves following in the wake of our ship. The lights from their doors and windows streamed in long lines across the smooth surface of the channel; and from one of them, sounds of festivity floated out upon the night air.

Gurupá, which we passed early on the following morning, is rather a cheerful-looking village, situated, as it is, along the margin of a yellow cliff some forty feet in height, the approach from the landing place being by a flight of steep steps. Five hours later we turned aside into the mouth of the Xingu river—a tributary which possesses the charm of mysteriousness, on account of the way in which its greater portion has been securely guarded, up to the present time, from the eyes of explorers, by the hordes of savages which infest its banks.

It was the hottest part of the day when the 'Belem' dropped her anchor into its clear green water, off the village of Porto do Moz, and great was the change we experienced, upon leaving the shade of her breezy upper deck, to land at the glaring white sand beach which fringed the margin of the little bay. The villagers were taking their afternoon siesta when we strolled through the deserted streets in the hot sunshine. We were filled with envy on beholding the scanty attire of a ridiculous old fowl, wandering about without a single feather, having apparently plucked itself for the sake of coolness. It is doubtful, however, if it reaped much advantage from the change,

for its skin was dreadfully blistered, and burnt into the hue and consistency of tanned leather.

Our captain conducted us to the house of the district judge, from which we adjourned into the cool shade of his fruit garden, where, in the poor-looking soil, flourished cocoa-nut palms, bananas, guavas, oranges, limes, papaws, cacao, and pine-apples. Two sailors were sent up the cocoa-nut trees, and soon rattled down some fifty or sixty of the nuts, which astonished us by their great size and perfection, for it is a popular belief that these palms will not bear at such a distance from the sea coast. After refreshing ourselves with copious draughts of the milk we returned to the 'Belem.' Viewed from the deck, Porto do Moz presented a pleasing appearance on account of the cleared grassy spaces surrounding the village, and separating it from the forest.

As we steamed out from the Xingu, we obtained a distant view of the flat-topped mountains of Almeirim, upon which we gazed with interest as being the first high land upon the banks of the Amazon. The thickening darkness soon shut them from our view, and before morning they were left far behind. Our next stopping place was Prainha, where the 'Belem' remained only half an hour, and, soon after leaving it, entered the narrow channel leading to Monte Alegré. Here there was a change in the character of the scenery—stretches of savanna became mingled with the forest, and gave a park-like appearance to the view, while through the various openings we obtained glimpses of the Tajuré and Ereré mountains, and the

huge white church of the upper village of Monte Alegré. Our pleasant journey was now drawing to a close, for we were near the place where we had arranged to commence our labours.

On arriving about mid-day at the Port, we landed, bag and baggage, and presented our letter of introduction to Senhor Onety—better known as Don Manoel, surnames being of no account in this country. This gentleman, the agent of the Amazon Steam Navigation Company here, set aside for our use a part of his own house—one of a row on the sand-beach, within one hundred yards of the water's edge. It was a small two-roomed building, with walls built of upright posts, wattled and filled in with mud, neatly plastered and whitewashed both inside and out. The roof was tiled, and the door and two front windows had arched tops—the latter unglazed, but furnished with wooden shutters. A bright-coloured border round the outline of the building, assisted by the green door and shutters with their bright blue casings, gave the exterior a gaudy appearance. There was only one story, but the rooms were lofty, being devoid of ceilings, and consequently open to the roof. The floor was paved with bricks. We have been thus particular in describing this structure, not only because it was our head-quarters for a period of three weeks, but also because it is a characteristic specimen of three-fourths of the houses constituting the villages of the Amazon. It was separated by the skeleton of an unfinished house from the remainder of Senhor Onety's abode, which resembled in every way a lengthened example of that already described, except that it had no windows—the sole

external features consisting of five front doors. Immediately behind was a yard enclosed by a high paling, containing sheds in which the cooking operations were performed, and the slaves hung their hammocks at night.

On taking possession of our dwelling, we found that it contained only one table, and no other article of furniture, but it is surprising how comfortable we contrived to make it look with the help of our ship-chairs and hammocks; by a neat arrangement of our empty boxes; and by hanging our meteorological instruments against the walls. Besides the three members of the expedition mentioned in the preface, our party now consisted of an Interpreter—Senhor Vasconcellos—and our faithful Indian servant, William Abrahams, whose history is given in a former work by one of the authors of this book.

The village in which we were now quartered was a small place situated on a triangular patch of sand, occupying the mouth of a sloping fan-shaped gully, shut in on the east and west by high wooded bluffs, and open in front to the Gurupatuba river. It was known as the Port of Monte Alegré—the town bearing that name being situated on high land at a distance of half a mile to the northward. Late in the afternoon we sallied forth across the loose sands, the heat of which even then was almost unbearable, as it radiated upwards, fairly scorching our faces, and made our way up a gentle incline to some pretty fountains at the neck of the gully. They were shaded by palms and flowering trees, and edged with ferns and mosses. Several small streams burst out from beds of friable pink sandstone, and fell by clear leaps of fifteen feet

into tubs and cisterns that had been set to catch them. Picturesque groups of the inhabitants were assembled here washing their clothes.

Great was our astonishment, and the shock to our modesty, when upon suddenly entering one of the retired hollows, we saw a light-complexioned gentleman, almost as stout as the Tichborne claimant, standing in the garb of Adam under one of the jets of water; and a black woman, in the equally simple costume of Eve, sitting with her back to us under another. They were evidently enjoying the coolness of these natural shower-baths, without giving a thought to the indelicacy of the situation.

Struggling up a steep and rather winding pathway, overhung by trees and shrubs, we at length emerged upon a large open sandy square, dotted over with patches of savanna grass and the cone-shaped nests of white ants, round which the town of Monte Alegré was disposed. There was some little life and stir at the Port which we had left, where an ox-cart now and then moved about, or a boat-load of people landed to make purchases at the shops, but here not a human being was to be seen. The houses had their doors and shutters closed, and the place resembled a city of the dead. Lean, miserable curs lay about here and there, raising their heads to gaze curiously at us for a moment, but too lazy to get out of our way.

The deserted look of the place gave us the feeling that the world had grown old, and, quite worn out, was about to perish of inanition. To-morrow might be its last day, and, with the conviction of doom, a gaunt resignation to fate had settled down upon

everything. The suggestiveness of the scene was heightened by a glimpse of the cemetery palisading, which, overshadowed by a huge cross, occupied the entire western side of the square.

In a corner stood the large new church, which we had seen on our way up river. It was an imposing-looking building, out of all proportion to the size of the town, and had two towers, one of which we ascended for the sake of the view. Here at the top was a fine cool breeze in which we luxuriated for a time, and enjoyed the extensive prospect to the southward, ranging over the wide alluvial plain of the Amazon, intersected by innumerable lakes and channels, with the mighty river itself flowing beyond. Northward the eye travelled across a tract of undulating savanna country, and rested upon the wooded slopes and bald brow of Tajuré mountain. Beyond the cemetery, from a point of the hill which enabled us to look westward, a still more beautiful view was obtained, embracing the serrated outline of Ereré, and the gigantic artificial-looking column of rock on the verge of Pytoona mountain.

The prison of the place was as dilapidated as that of Breves, and to our surprise was quite untenanted. On inquiring of a yawning cobbler who had just come out from his afternoon's nap, we were told that it claimed, at this time, only one prisoner—a murderer sentenced to confinement for life. He had, however, fallen into bad health, and, to save the authorities trouble, had been sent home to the bosom of his family, with instructions to nurse himself and be ready to return when wanted!

The cobbler also explained to us why so many of the houses were shut up and empty. It appeared that the well-to-do people were away at their *sitios*, or country houses, situated on the borders of the Amazon amidst their *cacoals*, or chocolate plantations. The others were engaged in fishing on the neighbouring lakes. They only live in the town when their *cacoals* are flooded by the rising of the river; when the fishing season is over from the same cause; and upon festival occasions, such as Christmas and Easter.

As the cool shades of evening were coming on, we crossed the square with the intention of returning to the lower village, and observed that some of the inhabitants, emerged from their retreats, were sitting on rocking-chairs in front of their doors.

One of these proved to be a gentleman to whom we had a letter of introduction, and who, upon its presentation, invited us into his house, where we conversed through the medium of our Interpreter. As is often the case, the conversation took a direction one would scarcely have anticipated. Our entertainer led it abruptly into the subject of chess, by informing us that he was a great admirer of the game, and, in fact, a designer of chess problems for the journals of Europe and America. Was this then the true explanation of the deserted look of the town? Were the remainder of the inhabitants shut up in solitude, engaged in working-out these puzzling intricacies for the outside world? Monte Alegré now wore a different aspect in our eyes as the possible seat and centre of a branch of deep and attractive study. We felt that we had at last run to earth, in a very unexpected quarter, the

origin of those mysterious columns of chequered squares, seen from our childhood in the pages of the 'Illustrated London News'!

By the time we had arrived at our house in the lower village night had set in, bringing with it hosts of mosquitoes, against the attacks of which we fenced with vigour during dinner. We were saved from the trouble of catering for ourselves during our stay in Porto Alegré, our host providing us with meals, which consisted of the usual Brazilian fare. Tough fresh beef alternated with salted and dried beef; and fresh pirarucu, with the same fish cured. Owing to the intense heat of the climate, neither fresh meat nor fish will keep more than twelve hours, consequently, when an ox is killed or a pirarucu caught, we subsisted for one day upon fresh food, while for several days after we partook of the salted and dried remainder. For the benefit of those who have never heard of a pirarucu (*Suidas gigas*), we may state that it is a monster of ungainly shape, often attaining a length of eight feet, whose iridescent scales have scarlet borders, increasing in width towards the tail. Eaten fresh, its coarse flaky substance has a soapy flavour, but when cured it is somewhat more palatable, though never a favourite food with any of us.

Perhaps the greatest drawback to the enjoyment of life in Porto Alegré was the intense heat. The sun rose every morning in a cloudless sky, and made its power felt during the livelong day; storing up its heat in the surrounding sands to be given off during the darkness, thereby robbing the night air of the coolness which should belong to it. Our maximum

thermometer sometimes registered 97° Fahr. in our dwelling, and the minimum seldom fell below 80°. It was tantalizing to see the daily breeze ruffling the surface of the Gurupatuba river in front of us, and waving the tall sedges on its southern bank, but never deigning to fan our heated forms.

The action of the currents in this river was a great mystery, for at times they set up the Gurupatuba for days without interruption, and then as persistently flowed the other way. Only one explanation occurs to us of this singular phenomenon of a river running backwards towards its source. Some way up, it is connected by a side channel with an extensive sheet of water, called the Great Lake of Monte Alegré; and we think that the enormous evaporation from this wide expanse must reduce its surface at times to a lower level than that of the Amazon, which then rushes in through the Gurupatuba to occupy the vacancy. During cloudy or wet weather, these conditions are not fulfilled, and the Gurupatuba resumes its natural flow.

On the first night of our stay here, as we strolled beside the river, looking at the brilliant southern constellations, we saw a shadowy form seated by the embers of a wood fire which had been kindled upon the beach. Believing this, as we did, to be a dog or a goat, we were astonished on hearing it say to us, in very good English—"Good evening, gentlemen." Recovering from our surprise at being greeted in our own language, when we so little expected it, we advanced and entered into conversation with the figure, which proved to be that of our nearest neighbour,

seated on a low chair in the smoke of the fire, for the purpose of avoiding the attacks of the mosquitoes. He informed us that he was a "Rock Scorpion"—that is to say, a native of Gibraltar—had settled here many years ago, and was making his living as a tinsmith. On all the subsequent evenings spent by us in Porto Alegré, the conversation was renewed as regularly as the mosquito dispersing fire was lit, and chairs brought out upon the beach by his two sons.

By day all the goats of the village, headed by an old billy, seemed to congregate before our door, and, when opportunity offered, boldly entered the house, where they perched upon our very table in search of provender. At night they changed their tactics, and flocked into the back yard, bleating under the window, and making incursion into our store-room. On one occasion the noise was so distracting that we armed ourselves with decaying oranges, and, suddenly throwing open the back door, discharged a simultaneous volley for the purpose of dislodging the enemy. A sudden retreat ensued, and we could see them, in the indistinct light, struggling and jumping over each other, in their frantic efforts to pass, as quickly as possible, beyond our reach, through the narrow gateway. One of our missiles, however, seemed to have reached a mark that we never intended, for a slave, who had been lying in his hammock under an open shed, suddenly sprang out, and paced up and down the yard, holding his hand to his stomach as if in great pain. Recovering a little, he hastily untied his hammock and beat a retreat to safer quarters, not venturing to demand an explanation from us, as a free

man would have assuredly done. We never looked upon slaves without feelings of pity, and regretted the above mishap; but we were pleased to observe that Senhor Onety always treated his with great humanity —in fact, he would not use the term "slaves," but spoke of them always as belonging to his household.

It is also satisfactory to reflect upon the fact that the present enlightened Government of Brazil, under its able and talented Emperor, has passed a law abolishing slavery within its ample dominions. According to this enactment, all children born of slave parents after the 28th September, 1871, as well as the whole of the slaves belonging to the nation, are declared free; and provision is made for the setting at liberty of as many as possible of the remainder, every year, by means of an emancipation fund, derivable from various sources.

Our sitting room for the day was converted into a sleeping apartment for the night, with the greatest facility; being furnished, as all others are in this country, with strong ring-bolts let into the wall at the precise distances apart required for slinging hammocks. When the majority considered that the hour for turning in had arrived, the remainder were obliged perforce to set aside whatever they were engaged in, and the work of hoisting hammocks, encased in mosquito netting, became general.

Some of our party were as yet unused to these substitutes for beds, and amusing accidents occurred. For instance, a heavy thud being heard, the Engineer was discovered lying on the floor, with his pajanas in the air, and head emerging through a rent in the netting,

struggling to regain his perch. The Interpreter declined to sleep suspended, and had provided himself with a mattress which he placed upon the floor, under the table, which, like the tester of a four-post bedstead, upheld his mosquito curtains. This sort of life did not suit Mr. Vasconcellos, and it afforded us great amusement to listen to his exclamations of impatience, and tirades of abuse against it; often quite out of proportion to the circumstances that called them forth. Insect life was particularly disagreeable to him, and if even an innocent grasshopper chanced to alight on his dress, he was seized with terror, and loudly called upon us to deliver him from, what he was pleased to style, a "horrible jump devil." To the three members of the Commission, notwithstanding sweltering heat and some annoyance from insect pests, life in Porto Alegré, diversified by the excursions to be narrated in the succeeding chapter, was pleasant enough.

## CHAPTER III.

### EXCURSIONS FROM MONTE ALEGRÉ.

Start for Ereré — Amazonian Horses at Paisaja — Ereré Village — Ancient Indian Rock Paintings — Levremont Fasenda — Mosquitoes — About an Onça — View from Paraiso — Singular Conduct of Interpreter's Horse — Two other Adventures with our Horses — King Vultures on the Summit of Ereré Mountain — Adventure with Wasps — Pytoona — Sketch of Geology of Ereré — Getting Home on an Ox-cart — Journey to Tajuré Mountain — Sketch of Geology of Tajuré — Lose ourselves in returning — Second Visit to Tajuré — Attempt to Ascend the Ereré River — Alenquorns.

OUR object in making Monte Alegré our first halting place was for the purpose of examining the districts surrounding the Ereré and Tajuré mountains.

After two days' delay, we were enabled through the influence of Senhor Onety to enter into an agreement with a Spaniard, named Firmin, to supply us with horses to convey us to the Ereré district. Accordingly on October 22nd, just as day was breaking, and a rosy flush was spreading over the low-lying clouds on the horizon at the far side of the Amazon, we set out upon our journey. Our supplies of food, clothing and hammocks were carried upon an ox-cart. Through the heavy sand, up the long tiresome hill to the upper town, our two-horned steeds shouldered each other along at a slow and deliberate pace, stopping more than once for breath. There we were joined by Senhor Firmin, who was also to be our guide, and we

pursued our course in a north-westerly direction over a sandy, undulating savanna for a distance of five miles, down to a level, open plain; bounded on the east by Tajuré mountain; on the west by the slopes of Ereré; and on the north by low ridges and conical hills. After a short walk we reached the Ereré river, flowing through the plain, at a point where it lay in a deep still pool; and were ferried across to the Fasenda of Paisaja, upon its opposite bank. Here we had to remain a considerable time, whilst three or four black slaves caught the horses with lassoes, and placed them in a corral ready for our use.

Meanwhile we visited and tasted the tepid water of a small spring, having a slight flavour of sulphuretted hydrogen.

When the steeds were brought out we found them to be small, wiry, unshod, and not handsome animals; while two of the saddles were of English, and two of Spanish make. The latter had high peaks both in front and behind, and were constructed of wood, with a thin covering of leather over them, secured by rows of round-headed brass nails, which gave them a resemblance to old-fashioned trunks. The Chief of our expedition having had a previous experience of these hard seats, declined to use one, and much to the annoyance of the guide, who had selected the best accoutred steed for himself, insisted upon exchanging with him. Senhor Firmin, in giving up his mount, gravely intimated that it was exceedingly wild and dangerous; but this representation had no effect, for it was met by the counter statement, that a wild horse is at any rate preferable to a Spanish saddle.

Our Interpreter, to soften his obdurate seat, piled it up level from peak to peak, with his blanket, and sat on the top of all, open umbrella in one hand and reins in the other, looking for all the world like a man mounted upon a camel.

Our hammocks and change of clothing were made into bundles lashed to the backs of our saddles, the provisions placed in saddle-bags; and, thus equipped, we set off across the plain towards the broken outline of Ereré.

At the foot of this mountain stands the village of Ereré, which we soon reached, and dismounting at one of the dozen or so thatched houses of which it is composed, partook of the fruit of the orange trees by which it is surrounded, a proceeding very refreshing to our thirsty souls. The place boasts of a church—a curious little whitewashed building having a detached, wooden bell-tower—and a school house.

The mile and a half from Paisaja to Ereré on the hard saddle with very short stirrup thongs had been too much for the Botanist, whose legs became so cramped that he refused to ride farther, but had his steed led, and walked on, until at the end of four miles, owing to the great heat, he was glad to accept the offer of an exchange with one of the party who was more comfortably mounted.

For a considerable distance onward we passed through a shady forest of thick but not tall foliage, where we observed a species of small tree whose blossoms were not at all unlike gigantic buttercups. The path was so narrow that we brushed against the tree branches, creepers and parasitical plants on either

hand. Crossing some low spurs we came out on open savanna country, where there was a cattle farm, and rounding the western end of Ereré, passed through a gap between it and Maxira mountain. A precipice face of whitish sandstone on the former was adorned with a painting, consisting of a red circle standing on a triangular base, said to be ancient, and the work of Indians. Higher up was a round red patch, which must have been of immense size to be seen so far.

Late in the afternoon we arrived at our destination, a fasenda, called Levremont, close to the edge of a large marsh, the surface of which was clothed with a carpeting of grass of the brightest green imaginable, contrasting in a marked manner with the withered, straw-like herbage of the surrounding savanna. A large herd of cattle and many horses were feeding on this marsh, while others were to be seen scattered over parts of the savanna (or campo as it is here called) beyond, looking like little black dots in the distance.

The fasenda was composed of a mud-walled house with thatched roof, and a small corral built of strong rails; but there was not a yard of fencing to mark out the boundaries of the property, or form enclosed pasturês. The owner of the farm lives at Monte Alegré, and leaves the place in charge of six negroes, five of whom are slaves. These, soon after our arrival, returned on horseback from tending the cattle, and at once proceeded to shut up the doors and windows of the house, to keep out the night mosquitoes that would make their appearance in force at dusk;—in fact, whilst we were watching the beautiful sunset which lit up the distant mountains, we were

compelled to beat a hasty retreat to escape the vigour of the first attack of these troublesome insects. Within doors we were comparatively free from them, but were almost smothered by the heat and closeness of our room; and being without lights, we had no choice but to retire at once to our hammocks, notwithstanding the earliness of the hour.

On our way out, near Maxira Pass, we had seen a dead half-grown Onça (Jaguar) at the pathway side, hanging to a Curatella tree. It had been decapitated, and one of its paws severed from the body. Whilst lying in our hammocks we made inquiries respecting it, of the slaves, who occupied the same apartment, and were told that they themselves had met with it that afternoon, had given chase, overtaken and despatched it with sticks. From a former experience of the agility and tenacity of life displayed by jaguars, we did not feel disposed to credit the tale.

The following morning we rode northward to Paraiso mountain, and leaving our horses at the foot, ascended its bare sloping side to the summit. Stretched before us to the southward lay an extensive plain almost reaching to the horizon, in which was situated the Great Lake of Monte Alegré, its placid surface dotted with numerous islands. Beyond all came the dim light blue outline of the low plateau which lies behind the town of Santarem, on the far side of the Amazon. After enjoying this prospect for a short time, we descended by a different route, and regained our horses, on which we rode westward over the open plain.

The intense heat and want of water soon began to tell upon us, and seeing an open-sided hut in the

distance, we made for it, to obtain a rest beneath its friendly shade. When within a quarter of a mile of it, the guide, closely followed by the Interpreter and Botanist, set off at a furious gallop, while we, who had instruments slung across our shoulders, were content to jog on at a quiet pace. The fleeing horsemen had but half covered the distance to the hut, when a commotion took place in their ranks, and the Interpreter's horse was observed to be jumping in a most ridiculous manner, tossing its rider up and down upon his exalted seat. Suddenly lowering its head and coming to a stand-still, it sent him, open umbrella in hand, flying rapidly forward to the ground.

For a moment we feared that he had been hurt, but were reassured when we saw him rise quickly to his feet, still grasping the crushed and mangled remains of his umbrella. His horse's antics now engrossed all our attention, and excited our merriment, as it wheeled rapidly round and round on its hind legs as a pivot, with its head bent to one side, until it finally got dizzy and fell on its nose.

The Botanist's horse, which had been thundering behind it, took alarm at these extraordinary proceedings, shot off to one side of the path, and, wheeling round, came flying back to where we were. Its rider, who had usually little control over its actions, had now none whatever, and it convulsed us to see the astonished look depicted on the countenances of both horse and rider as they came to a stand-still beside us.

We hastened to assist the Interpreter to readjust his saddle-gear, and remount his horse, after which we reached the hut without further disaster. Finding a

pond of water near by, we seated ourselves under the shade of some low trees, and partook of our breakfast, for which we were quite ready, as it was 2 o'clock in the afternoon.

Sunset found us back again at Levremont, taking a bath at the edge of the morass, by dipping water with a calabash out of a sunken barrel, and throwing it over our heads, whilst numerous fire-ants, which resorted there for a drink, tormented us by biting our feet.

Unfortunately our dinner that night had to be postponed until after dark, on account of the lateness of our breakfast, and by this time the mosquitoes had come "down like a" million wolves "on the fold." As we had no means of obtaining a light inside the darkened house, we were obliged to walk up and down under the stars, fowl-bone in one hand and biscuit in the other, partaking of each, while we fruitlessly endeavoured to brush off the tormentors from our faces with the backs of our occupied hands. Those mosquitoes that lit upon our food must have been consumed by us, as it was impossible to see them in the imperfect light.

The next day was spent in visiting the Pytoona river, a broad sluggish stream to the westward, and in returning to the village of Ereré. At noon, during the latter portion of this journey we reached Maxira mountain, which we wished to ascend, and left our horses near its foot in the shade of some trees, giving the guide instructions on no account to stir from the spot until our return.

The way up, over high stones and rocks, amidst

coarse grass, almost as high as one's head, was very hot and fatiguing; and it was as much as some of our party could do to reach the top. Here we rested for a time, and were refreshed by a cool breeze; but, by contrast with this, the heat in descending seemed well-nigh intolerable. The sun in this equatorial region poured its rays vertically upon our heads, so that we cast no shadows, except a few square inches round our feet, and the furnace-like temperature of the atmosphere was quite as much as a white man could bear. On reaching the spot where we had left our horses, we were astonished to find that there was not a trace of the party remaining. We separated in search of them, and, after tramping about in a most unenviable frame of mind and body, discovered the guide quietly seated under the shade of a large cashew tree enjoying the fruit, while the horses were tethered to its branches. We came down heavily on Senhor Firmin, and, boiling as we were with heat and rage, rated him roundly; but, as he did not understand English, it was all lost upon him.

Another slight adventure occurred on mounting, which, being of a highly ridiculous nature, set us laughing, and put us all into good humour again.

One of the party led his horse from under the tree and got into the saddle, but had scarcely taken his seat before the animal, preferring the shade it had left to the blazing sunshine, bolted back again, carrying its rider into the low sweeping branches; which, taking him in the face and chest, swept him forcibly backwards over the horse's tail in a most undignified manner. But this was not the only difficulty we were

destined to have with our steeds that day. On one occasion when we had stopped on the pathway near the dry bed of a stream, the Geologist went with the guide to examine some rocks, leaving his horse tied to a tree. During his absence it broke loose, and made a sudden attack upon the Botanist's horse. There being nothing for that gentleman to do but to clear out, he dropped his reins and sprang to the ground; when away went both animals at a furious gallop, and were lost to view in the forest pathway. The guide jumped on his horse and gave chase, while we walked on, picking up here and there bundles of our baggage, which had been attached to the runaways' saddles. Fortunately, some horsemen, coming in the opposite direction, managed to stop them before they had gone very far, and soon we had the pleasure of seeing the guide return with them in triumph.

We passed the night at Ererê, at the house of a worthy old Indian, with two intelligent little grandsons, who took a great pride in informing us that they could read, having been taught by the "professor," as they designated the schoolmaster of the village.

When each day's journey was finished, our horses were at once turned loose upon the prairie, without being hobbled, and there they roamed about wherever they pleased. It was therefore little matter for wonder that every morning much time was lost while men were searching for them. Senhor Firmin never joined in the pursuit, but lolled about, smoking cigarettes in an exasperatingly cool manner, while we suffered from his bad arrangements. We say this without intending to speak harshly of this gentleman, but we were at the

time new to the country, and had not discovered that he was but a type of all the other dwellers in the Amazon valley, whose favourite phrase is *tem paciencia* ("have patience"). Our ears subsequently became accustomed to this oft-recurring answer to our protestations regarding the loss of valuable time; and, whatever else we may forget of the Portuguese language, these words, through their constant iteration and reiteration, are indelibly impressed upon our memories.

This scene of horse-hunting was so prolonged on the following morning, that we were obliged to give up our proposed journey to Pytoona, and spend the remainder of the day in an exploration of Ererê mountain. We rode round the eastern shoulder and up a long, smooth, sandy slope, at the head of which we left our horses; from thence we climbed a steep and rocky acclivity, and found ourselves at the summit, where an enormous rock towers upwards to a height of forty feet. Underneath this is a small cave or hole, the bottom of which is covered with black loam. Thinking it might prove to be a place of Indian sepulture, we dug as deeply as we could with a geological pick-hammer, and were rewarded by finding some rib-bones and portions of a human skull. Upon the flat surfaces of the rock, at the entrance to the cave, were numerous figures in red paint, representations of the sun, birds, human-like forms, and an unmistakable alligator, said to have been made by Indians, all traditions of whose existence have completely died out. Gazing upward at the pointed top of this singular rock, we were fortunate enough to obtain a near view of a pair of those shy and somewhat rare birds—the

king vultures. Upon admiring these clean-looking and bright-plumaged creatures, one could hardly believe that they are first cousins of the Urubus, and belong to the great tribe of scavengers. By right of kingship they claim the first alluring morsel of any recently deceased animal; and this couple evidently occupied this commanding position for the purpose of watching the gathering of their dark-coated subjects towards the spot where some unfortunate beast had perished. They would then swoop down and claim their share before the others touched it.

After viewing the glorious prospect stretched out on every side, to which no description can do justice, we regained our horses, and rode down the opposite slope of the ridge, joining the mountains of Ereré and Pytoona, to the vicinity of a grotto which we wished to visit. Whilst scrambling up to it, our eyes were gladdened with the sight of a rill of water, trickling from the rock into a little basin surrounded by long grass. The shapely columns at the entrance to the cave now lost all their charms for us, under the force of this superior attraction; but what was our horror, upon approaching the fountain, to find that it was infested by hordes of wasps, as thirsty as ourselves, arriving, drinking, and departing in hundreds. They crowded so thickly round the pool that it was utterly impossible to obtain a draught, without running the risk of being terribly stung by these vicious insects. But what will not human ingenuity accomplish under the strain of circumstances, when pitted against such diminutive, but by no means despicable foes! Without loss of time we set fire to the surrounding grass,

which advanced on the enemy in a broad red line, and spread rapidly in every direction. After a reasonable time had elapsed, we broke through the circle of flame into the blackened area, and, seated amongst the carcases of our vanquished foes, imbibed copious draughts of the now somewhat tepid water.

Many curious examples of weathering are exhibited in the friable sandstone rocks near by. In one place two large cylindrical columns supported a massive tabular rock connected with the face of the precipice, and presented the appearance of an imposing entrance to a building. Farther up the mountain great square pillars of sandstone, a hundred feet in height, stand out entirely isolated. When we had made the entire circuit of Ereré, which presents so many features of interest, we returned once more to the village.

One day was spent in visiting the southern extremity of Pytoona mountain, which is formed of a low escarpment of whitish sandstone, jutting out in three or four points. Ascending half-way up one of these we came to a small cave, called "Pytoona Igreja," which, by a great stretch of imagination, is supposed to resemble a church. The greater portion of the beds of sandstone at this spot are very friable, while some of the layers, here and there, are of a hard and durable nature. From the peculiarities of structure, producing unequal weathering, many fantastic pillars and masses of rock have been produced by subaerial denudation. Foremost in singularity amongst these is a mushroom-shaped pillar, standing upon the top of the most easterly point, which bears the name of "Pytoona Forno." *Forno* in Portuguese signifies

an oven—not one of the form familiar to English eyes, but of a flat pan-shaped nature, such as that used in this country for the manufacture of an article of diet called *Farinha.*

The campo in the vicinity was very sandy and barren, but supported the usual growth of savanna trees, amongst which were numbers of wild cashews, bearing fruit.

Our stock of provisions having become well-nigh exhausted we determined to return to Monte Alegré; and on the following day, long before the horses had been caught and brought in, we walked on to Paisaja, leaving the Interpreter and Senhor Firmin to follow with the nags. On the way we attracted the attention and curiosity of two semi-wild steers, which advanced a short distance towards us in a most threatening manner, obliging us to skirmish about behind some low groves and hollows in the savanna, to escape them.

By the time we reached Paisaja the rest of the party with the horses caught up to us, and we took a ride over the open country to the foot of the wooded hills to the north. An old negro and an Indian boy belonging to the farm accompanied us, and when we turned back at 4 P.M. they started off to search for a pair of oxen—then feeding somewhere in that vast plain—for our ox-cart. We therefore began to despair about getting back that night; but some two hours after our return to the farm, we were agreeably surprised to see the man and boy come up with them. They swam them across the river, and harnessed them to the old cart with solid wooden wheels; and by

7 P.M. we were jolting frightfully along on our way to Monte Alegré.

Crossing the plain in the moonlight we commenced a weary drag up the sandy hill. As the vehicle twisted about, the cracks between its flooring-boards opened apart and closed together again, producing no very pleasant sensations to us who sat upon them. The night air was fresh and balmy, and the only sound that smote upon the ear was the grinding noise of the ungreased cart-wheels.

Several casualties occurred on the way which delayed us a little;—one was the snapping of the rope which sustained the end of the pole, whereupon it dropped to the ground, giving us an awful jar, while the two old oxen walked quietly on. The next mishap was more serious. Our attention was attracted to the curious gyrations of one of the wheels, and before we had time to pull up, it "parted company with the parent mass," rolled on before us, and fell heavily on its side, while the cart came with a crash to the ground. This accident, resulting from the loss of the wooden pin that kept the wheel in its place on the axle, was soon made good,—another pin being cut from the stem of a neighbouring tree, to replace the one that had dropped out.

As the evening wore on, we all became somewhat drowsy and dozed a little, while our animals waxed more and more sluggish in their movements. Presently we were aroused from a nap by finding that our oxen had stopped altogether, and that one was lying down, having made itself comfortable for the night. The guide thereupon kicked the poor

brute up, and, to our disgust, roused it to renewed efforts by prodding it now and then with the sharp screw-end of a ramrod.

The moon was sinking to rest as we reached the town of Monte Alegré, and the darkness was so intense that we had some difficulty in finding our way down the hill to our quarters at the Port. Thankful and glad to be quit of the rough vehicle, in which we had spent so many tedious hours, we bounded from it at our door, and soon after were sleeping the sound sleep of men who had worked hard in the open air.

The geology of the district we had just visited, being of such an interesting nature, deserves much more than a mere passing notice such as we can here only take of it. There we find the mountains of Ererê, Maxira, &c., composed of beds of whitish sandstone identical with that of British Guiana; while the hill of Paraiso is formed of red shale belonging to the same formation. At the back of Ererê there is seen the edge of a thick interbedded layer of diorite, portions of which, weathering into curved forms, were taken for erratic boulders by the late Professor Agassiz, who paid a hurried visit to the spot. In the wooded plain to the northward we find blackish shales; and on the open plain to the eastward of Ererê village a great exposure of hard bluish-grey, thin-bedded, shaly sandstone, having a slaty fracture. All are covered with a superficial deposit of ferruginous clay, on the surface of which are small rolled portions of the same substance, coated with iron oxide, and

forming a shining gravel. Crossing the plain are some extensive dykes, which, standing above the level of the surface, look in the distance not unlike common stone walls.

Professor Hartt, in his "Contributions to the Geology and Physical Geography of the Lower Amazon," published by the Buffalo Society of Natural Science, states that on the Ereré river, and upon the northern part of this plain, in one and the same layer of sandstone, ten inches in thickness, he obtained characteristic fossils of the Devonian epoch. From having spent a considerable time in that neighbourhood, he was able to examine the rocks more minutely than we did with but a short time at our disposal. A great deal of work has to be done over that neighbourhood, before a complete geological map of it can be compiled. About the town of Monte Alegré there are sections of the recent deposits, which are also worth studying.

As the most interesting portions of the Monte Alegré district lay at such a distance from our head-quarters, it was not possible in the space of a single day to visit them on foot, examine them, and return to our quarters at night; therefore it was absolutely necessary that we should be provided with horses, or an ox-cart, to carry our small store of provisions and our hammocks. Consequently on the following day we applied once more to Senhor Onety to engage either of those means of locomotion for us. He tried to do so, but without success. Senhor Firmin was not going back to the Ereré district for any amount of coin, and would not hire his animals out

when he was not there to look after them. Other people who had horses would not hire them.

In those few days that we waited for some means of transport Senhor Onety worried himself greatly, and was continually running in and out of our place with one report or the other, upon the subject that interested us all at the moment. First, it was that a man had promised him horses, and would bring them to-morrow; then that the said individual found that he could not do so, and would *not* bring them to-morrow.

There was a blacksmith who would let us have two nags for three milreis a day each; and he actually sent them to Senhor Onety, who had them made fast to the palings of his yard. There we saw and admired their shapely forms, thinking now that two of us at any rate could have means of travelling; but alas for human hopes, how easily are they dashed headlong to the ground! During the night they disappeared in a most mysterious manner—escaped, our landlord called it—and were never seen by us again.

Senhor Onety now gave it up as a bad job, acknowledging himself beaten, and the chances of our being provided with horses as very faint indeed. The one or two ox-carts of the place were constantly employed, and we could get no aid from that quarter. The people here, and, as we found to our cost, in other parts of the Amazon valley, do not seem to care to earn a little money by hiring out themselves or their cattle; they prefer to spend their time hanging about in boats, fishing; or in staying idly at their houses, while the little crop of Indian corn or mandioca they

have planted is fit to be gathered and sold; or the cacao in their cacoals has ripened, and is ready to be converted into money. A more independent lot of people does not elsewhere exist; and we have seen some of them, dressed in rags, refuse with scorn the offer of three milreis (6*s.* 6*d.*) a day, to come as boat hands, or to cut paths in the bush.

All our dreams of easy and quick travelling having by this time vanished, we begged our good friend to get us men, as carriers and guides to Tajuré mountain. This he at last accomplished by engaging a Saudosa Indian, or Tapuyu as they are here called, named Kaitanie; and hiring out to us one of his slaves, a tall, powerful, old black man, named Brasfort. These two men were all that could be procured for love or money, and represented in reality the army of carriers that we had pictured to our mind's eye, as likely to be required. However, they were better than none, and with our servant William would be able to carry enough food to last us for a short time.

After three days of forced inactivity, we and our three carriers at last marched forth on foot at an early hour in the morning, and passing through the upper town came into the campo country. There we followed a road leading through deep sand, where the low trees gave not a particle of shelter, until we arrived at a scattered village called Saudosa. Passing after this through an isolated patch of forest, and two open savannas, we came to the little stream called Rio do Jacaré (Alligator river), near the foot of Tajuré mountain, at 11.30 A.M., having been six hours on foot.

After breakfasting we ascended the mountain, up a steep acclivity, clothed with bush, to the top of the first grass land, which extends from thence to the top, and continued along it in a northerly direction towards the summit. Before we had gone very far our guides, whose bare feet suffered from the sharp and sun-heated flinty stones which covered the slopes, came to a stand-still, and took shelter in the shade to await our return. We crossed two deep gullies, and gained an elevation of 1005 feet—by aneroid—above the sea, about half a mile south of, and 300 feet below, the highest point of Tajuré. As it was then too late to reach the summit, we rested and enjoyed the surrounding magnificent view, from our exalted position; after which we returned to our guides, and descended the mountain to the Jacaré river, where we camped for the night.

As we were partaking of our dinner the mosquitoes attacked us in thousands, and after we had turned into our hammocks they came in such numbers, that unprotected by nettings, which had been left behind from want of carriers, we could not obtain any sleep whatever. The old slave rolled himself in his blanket on the ground close to a fire; the Indian guide stalked about, amusing himself by lighting small fires of dry campo grass; while we kept swinging backwards and forwards in our hammocks, trying to dodge the stings and miserable buzzings of our tormentors. After a time, Brasfort and Kaitanie went off over the campo to search for a less mosquitory place, while we left the camp also with the same object in view. The new position we chose was pretty free from them at

first, but in an hour's time there were as many about us as we had already run from, and we were compelled to take down our hammocks and be off again. At the third place we rolled ourselves in our hammocks, and laid down on the clean white sand, but as the heat thus engendered was too great to bear, this mode of seeking rest had to be abandoned. Lighting fires around us, the smoke from which kept off our enemies a little, we were enabled to obtain a broken nightmare-like sleep till daylight.

In ascending Tajuré mountain from the Jacaré, a narrow strip of recent deposit was crossed over, through which protruded isolated patches of true carboniferous limestone, containing characteristic fossils of that formation, such as *Productus*, *Orthis*, and *Spirifer*. As this rock is much broken up, and covered with a growth of the most tangled and prickly lot of vegetation imaginable, it was difficult to make out its true mode of occurrence. In one place, where its largest exposure occurs, it is overlain conformably by beds of brownish sandstone, dipping east at an angle of 32°. Above the latter rock comes a layer of diorite, which extends to the foot of Tajuré, where, owing to the talus and vegetation, the junction with the mass of the rocks composing the mountain is lost. These rocks consist, in an ascending series, of about 100 feet of hard, grey shale, upon which comes sandstone, to a height of 1000 feet. The top is crowned with a thick bed of coarse sandstone, which dips east at an angle of 10°.

Next morning we explored the district, and examined the interesting exposure of carboniferous limestone,

after which we started on our return to Monte Alegré, as our provisions would only hold out till evening. Passing through Saudosa we stopped at one of the houses, and found the people inhabiting them a remarkably plain-looking lot, quiet and dull in the extreme. Confident of our power to find the short cut by which we had come, we started on in advance of our guide, but as its junction with the cart-road we were on was so obscure, we passed the path without noticing it. Following the road onwards it brought us out of the forest upon a fine open low-lying savanna, on which after a time we passed a cluster of houses, nestling near a stream by a hill side—a neat and pretty little place—where we inquired our way to Monte Alegré.

Upon being told that we were going right we stepped out briskly, and entered a wood where the road was very muddy. There we had to dodge a herd of cattle, driven with much shouting by horsemen, and finally emerged upon the edge of a muddy-water channel, which we at once recognized as the Guru-patuba. From this we saw that we had come a long way out of our course, and would have to retrace our steps.

While asking at a house for advice regarding the route we should take, up came our black carrier, old Brasfort, apparently in a towering passion, wanting to know where we were going, and whether we wished to reach Monte Alegré that night. He marched us back like captured runaways through the little village, and for a mile over the savanna beyond, upon the same road by which we had come; then striking off along a

cart-road he led us for miles over a deep sandy waste, up a gradual incline, to the town of Monte Alegré; at which we arrived just as the sun was going down. Having recovered his good humour, lost by the miles and miles of hot walking he had accomplished in tracking us out, he became very facetious, and jokingly remarked, that if he had not caught up to us, we should undoubtedly have gone on to Marajo island, at the mouth of the Amazon. Further, that he intended taking us to the commandant of the town, in order to claim the reward always given for capturing runaways.

We paid a second visit to Tajuré two days after our return from the first, and with very great trouble procured an ox-cart from Senhor Onety, who hired it to us, he said, "to oblige us." Here if a man sells you anything, or hires you anything, while charging an exorbitant price, he always says he does so in order "to oblige the Senhor." There was one condition attached to the bargain, viz. that the ox was to be worked only during the night or early morning, as it had but lately recovered from an attack of illness; consequently it went with us by the name of the "Convalescent." The excursion though pleasant was devoid of incident; we were amused, however, when passing a house on the road, by the singular conduct of a sheep, which charged us in company with a pack of dogs. It seemed by long association with those animals almost to have assumed their nature, and we should scarcely have been surprised to have heard it bark.

Our last excursion from Monte Alegré was an

unsuccessful attempt to ascend the river Ereré, to the village of that name. A clumsy boat, but the best that could be obtained, was secured for our accommodation from the step-son of our neighbour, the "Rock Scorpion"; but neither man nor boy could be persuaded to go with us as guide, or to assist in propelling the montaria, so that we were entirely dependent upon our own wits and exertions. At nine o'clock in the morning of the appointed day, several paddles, resembling large racket bats, were placed at the door of our house to announce that the craft was ready. Our Indian servant William accompanied us to cook, assist with the paddling, and make himself, as he always did, generally useful. The luggage, consisting of food and the necessary implements for cooking and eating, packed in one tin box, and clothes and hammocks in another, were stored in the centre of the montaria, and off we pushed. The way lay up the Gurupatuba; and the wind being fair, as it always sets in that direction by day, we had only to hoist our ragged sail, and the village of Porto Alegré soon slid from our view behind the wooded bluff which bounds it on the west. For many miles the banks on our right rose abruptly from the water, and were well clothed with palms and other trees. Behind the various projecting points were picturesque hollows with palm-thatched Indian houses, and naked children playing about the doors. On the other side of the river the flat alluvial land, dotted here and there with bushes, contrasted with this pleasing scene. Porpoises were unusually numerous and lively that morning, rising simultaneously out of the water in

well-dressed lines five or six abreast, jumping into the air a clean ten feet, and descending head foremost with a mighty splash; or following behind the boat, to come up every now and again, with a snort, close to the elbow of the steerer. One even went as far as to rub his back playfully against the bottom of the boat, which made us think for a moment that we had run aground upon a sand bank.

In two hours we left the Gurupatuba for the Pytoona river; and as this wound about very much we had to take down the sail, when the wind was not fair, and paddle round the bends. This exercise is sufficiently fatiguing to unaccustomed performers, the strain on the arms being much greater than in rowing. It is necessary to sit quite close to the side of the boat, and then grasping the paddle by one hand just above the blade, and by the other at the top of the handle, to spoon the water backward with vigorous strokes.

After a time this work made those of our party who were new at it feel ready for a rest and breakfast; and we soon pulled up at a place where a shelving bank for convenient landing, a clump of bushes for pleasant shade, and some large logs for seats, seemed to indicate a suitable spot for that purpose.

Few people perhaps know how enjoyable a meal is under such circumstances, when, if the fare be somewhat coarse, and the apparatus rude, these drawbacks are more than counterbalanced by good appetites, the sense of freedom, and the delights of a well-earned rest.

The fine fresh breeze waved the tall savanna grass, which was so dry that our fire quickly communicated itself to it, and the blaze spread until acres were burning fiercely. For the whole of the remainder of the day the flames and dense columns of smoke remained in view.

Soon after we had resumed our voyage we reached the mouth of a small river on our right, which we took to be the Ereré, and turned up it accordingly; but were soon stopped by dense tangled masses of floating grass and water-weed, through which we could not pass. Thinking ourselves to be mistaken in the identification of this tributary, we returned to the Pytoona, and paddled and sailed up its windings for some five or six miles; when we came upon another stream on the right, into which we turned, without much hope, however, that it was the one we sought. It proved to be only a bye-channel of the Pytoona itself, flowing through little lake-like expanses, so shallow in parts that there was only just water enough for our boat.

Numerous fish kept leaping into the air, and one fine fellow with a large red spot on its tail jumped quite into our boat, and imprisoned itself under our baggage; where we gladly let it be, for we knew that it would be useful at dinner-time. Along the margins of the pools grew the magnificent Victoria Regia, with its huge pink flowers, and floating leaves three or four feet in diameter, with rims two or three inches high. This queen of flowers is not frequent enough anywhere in the world to be common; and many Amazon travellers have been obliged after several years of

wandering in the valley of the great river to make a special excursion, under native guidance, to see it growing in some retired lake; but we were fortunate enough to come upon it quite accidentally before we had been many weeks in the country; and we subsequently saw it in three or four other localities.

The banks of the Pytoona were flat and open, and very beautiful were the views of the rugged Ereré and Pytoona mountains on our right. We were not far from that shoulder of the latter upon which stands the singular mushroom-shaped rock, which is its most marked feature.

It was a long time since we had seen a house or human being; but at length a man and woman were espied, sitting under a tree, near the camp which they had formed for the purpose of fishing, and of them we inquired our whereabouts. Our Interpreter did not accompany us upon this expedition, and the conversation had to be conducted in broken Portuguese; but it was made clear to us that the river with the tangled weeds was, after all, the Ereré. At once, therefore, we turned back, and by hard paddling managed to reach the mouth again, just as a glorious sunset was making all the sky and river flame with crimson tints, and steeping the slopes of Pytoona in that soft, warm dove-colour seen only in the tropics.

Here at the confluence we resolved to encamp for the night, in the hope that we might be able to force our way in the morning through the floating barrier, and find clear water beyond. Around a small clump of trees were the remains of eight fires in a circle, marking the spot where other travellers had en-

camped, and we could find no better site for our own resting place. Whilst we took a bath, William set the self-captured fish and a fowl to roast. By the time they were ready, it was quite dark, and dinner had to be eaten without knives and forks. Our hammocks were hung in an equilateral triangle between the trees, and we hastened to escape within the nets from the attacks of the mosquitoes, as soon as we had finished the meal.

In the long night which followed, we awoke for a few minutes, now and again, and heard the splashing of alligators, porpoises, and pirarucus in the water close by. The bellowing of an enraged bull suggested a fear lest he should charge through our camp, and become entangled in our mosquito netting, for we did not know until the morning that he was on the other side of the river. The moon, almost full, lit up the broad grass lands around, and shone upon us through the leafy covering which alone sheltered us; but the night was beautifully warm, and almost free from dew. These things we only noted at intervals, for through the most of the night we slept soundly.

The stillness of early morning was broken by the discordant sounds produced by immense numbers of very large birds, called by the natives Alenquorns. It somewhat resembles a turkey in form, but is much larger, and is likewise provided with a fleshy appendage on the forehead. The traveller who hears the voice of this bird for the first time will probably be much startled, especially should he happen to be in its immediate vicinity. Series of loud notes, com-

mencing like the braying of a jackass, and ending like the cooing of a dove, will strike upon his ear.

Other forms of bird-life were exceedingly numerous, represented by white and grey cranes, spurwings, stinking pheasants, ducklars, and numbers of small reed birds.

Stout forked poles were the weapons with which we sought, after partaking of morning coffee, to force our montaria up the Ereré river, over or through the mass of water weeds and grass, which had somewhat shifted its position, but looked as impassable as ever. Scarcely had we advanced a hundred yards, when we found that the toil this kind of work involved was more than we should be able long to endure; and it seemed advisable to land and see how far the barrier extended. A lengthy walk did not bring us to the end of it, and we had reluctantly to admit that the Ereré was hopelessly blocked. Nothing remained but to return to Monte Alegré.

With the breeze against us, paddling was hard work, and when we became tired we tried what our boat would do in the way of beating against the wind. Her performance was none of the best, our advance on each tack being a few feet only, and sometimes nothing.

We always experienced much difficulty in bringing her head to the wind in order to go about. This proceeding usually involved our running aground, and on one occasion, in spite of all our efforts, she became unmanageable, and, turning tail to the breeze, scudded rapidly up river for some hundred yards before we succeeded in stopping her headlong career, which was

only accomplished by taking down the sail. At length we hit upon the plan of sailing the gaining tack and paddling the losing one, and in this way got back by the afternoon to Porto Alegré.

Our exploration of this district was now completed, and we were about to transfer our quarters to Prainha. We had already become acquainted with Senhor de S——, the Subdelegado, and consequently the highest official of that village, who had offered to do anything in his power for us, and promised to procure us a house, to be ready on our arrival.

## CHAPTER IV.

### AT PRAINHA.

Leave Monte Alegré — Arrive at Prainha — Description of Prainha — Mirage — The Village Tailor — Our Quarters — "Jack-Spaniards" — Slave offers himself for Sale — Our First Dinner at Prainha — Are visited by a Snake — Postal Arrangements — Our Interpreter — Surveying in the Bush — Adventure with Ant-eater — Insect Pests — Our little Boy Waiter — The Village Church — Its Service — Female Costumes — Virulent form of Fever visits Prainha.

AT daybreak on the morning of November 14th, the profound stillness which at that hour always brooded over the little port of Monte Alegré was broken by the beat of the paddles, and the scream of the whistles of the Company's steamship 'Arary,' as she rounded the wooded bluff to the eastward, and stopped off the beach. Her captain, Commandante Leal, kindly sent a boat, in which ourselves and our baggage were transferred on board. Taking an affectionate farewell of Senhor Onety on the deck, and waving adieus to the senhoras of his family as the ship steamed away from her anchorage, we soon found ourselves running swiftly down with the current towards Prainha, the place of our destination.

A steam of four and a half hours brought us off the village, and we gazed with interest upon the spot which was now to be our head-quarters for some weeks, trying to guess which of the houses might be the one that had been set apart for our accommodation.

It proved to be no less a building than the school, and as soon as a landing had been effected, we hastened to take possession. Forms and desks were bundled out to make room for us, and in a few minutes a long string of Indians from the crew of the 'Arary' were struggling up the steep path with our numerous boxes and other baggage upon their shoulders. It is hoped that the cause of education did not suffer on account of our invasion of the school premises, for the professor arranged, we believe, to carry on the work of instruction in his own house immediately adjoining ours; but we saw little of the business, and fear that his pupils were few.

Prainha is not a pretentious or imposing-looking village, and enjoys none of those glimpses of mountain scenery which make Monte Alegré unique among the Amazon towns. The houses are ranged in a straight line along a cliff, very low at the western end, but rising gradually to the eastward, until it attains an elevation of sixty feet. Here, on the very highest point, was situated our dwelling, the last in the straight row facing the river. There was a back street in the settlement, but it had very few houses; and most of them were only skeleton remains of habitations that had fallen into decay, or had never been finished. Immediately behind was the forest, not, for the most part, of virgin growth, but that lower and denser vegetation which springs up on abandoned clearings. In front rolled the broad, tawny waters of the Amazon, but it was not possible to see across to the farther shore, and take in its full width, on

account of a string of large islands three miles out. The view down river was cut off by a wooded projecting point, but looking westward one saw the water and sky meet at the horizon.

A singular mirage was always visible here in the daytime in ordinary weather. The line of the water horizon was very distinctly marked, but the forest-covered shores, instead of ending at it, or seeming to drop behind it, rose up in the air beyond and hung in the sky, with a faint inverted image of themselves below. Islands also lying beyond the line, instead of appearing to touch it, were suspended at some distance above in the same kind of way. The effect is curious, and forms a characteristic feature of the scenery of the whole Amazon, and all its large tributaries. The accompanying diagram will convey a clearer idea of this phenomenon than many words could do.

MIRAGE.

We had no sooner entered upon the possession of our new abode than we hastened, by a judicious disposal of our baggage, as at Monte Alegré, to give it a somewhat habitable look. In this work the tailor of the village gave us much assistance; and when it was explained to him that we wanted a flat board to serve as a hanging shelf for the purpose of securing our provisions from the ravages of rats and ants, he went and

unhung the door of the gaol, which, like another Samson, he brought to us on his back. Certainly, it was of little use to that edifice, for there were rents in the walls almost large enough for an ox to pass through; but it served admirably the purpose for which we required it.

The tailor may almost be said to have taken up his abode with us from that time forward, for he spent as much time in our house as in his own. It was no unusual thing when we awoke in the morning—our doors remaining open night and day—to find him comfortably seated on one of our boxes, smoking his pipe; and he seldom left us much before we retired to our hammocks at night. No one invited him to come, and no one thought of turning him out; for he was not by any means a nuisance, being a man more given to musing than to chattering, and always ready to make himself useful. He would willingly run for a pitcher of water, or sweep out a room, and he performed for each of us the important service of cutting our hair. At times he went into the bush with us, and assisted in surveying; but for this we paid him.

Doubtless his own trade was a poor one in that hot climate, and we never knew him to do any work at it; except on one occasion, when he astounded us by the assertion that we must excuse his non-attendance upon us, as he had six waistcoats to make! Now this was an article of costume quite unknown in Prainha—we ourselves never wore it—and from whence such an order could have come is inconceivable.

Less smart looking than our house at Monte Alegré, our new abode was nevertheless more comfortable.

It is true that its walls were unplastered within or without, so that the rough posts, and lumps of clay, which composed them, were all exposed to view; but on the other hand, it had, on two of its sides, quite a number of doors which could be set open to catch every breeze that blew. The trade wind, setting steadily up the Amazon from nine in the morning until three in the afternoon, swept right through, thanks to our elevated situation; and the change from Senhor Onety's house on the blazing sands was most refreshing. The tiled roof was not, however, as water-tight as it should have been, and sometimes when heavy tropical rain fell, accompanied by strong wind, the water was driven through the interstices, and poured down upon us in copious streams. Somewhat ridiculous was the appearance we presented on these occasions, sitting in our room with umbrellas spread and mackintoshes on, or standing up in corners where the shelter was tolerably perfect, while our luggage was protected by every available wrapper.

Another drawback, perhaps more serious than the one just mentioned, because more constantly present, was the number of large wasps, known as "Jack-Spaniards" in the West Indies, which had built their bell-shaped nests in the roof. They were continually passing in and out through openings under the eaves, bringing materials for their architectural labours. Had they confined themselves to this, it would have been all very well, and we might have got some amusement out of watching them; but at times they quarrelled, and fell struggling with one another through the air. Ill betided that member of the

Commission below upon whom they happened to alight, for instantly a merciless prod from their long stings made that unfortunate individual exhibit the most lively emotions of pain and rage, and stamp about the floor, uttering urgent requests for the ammonia bottle.

On one occasion when we had some writing to do, their appearance was so threatening that we were kept in a constant state of nervous excitement, and it was judged best to burn them out. Flambeaux of burning palm-thatch were hoisted upon reeds, and great havoc was wrought; but although hundreds of dead bodies, and many nests and larvæ, were swept out when the destruction was over, the wasps did not appear next day a whit less numerous than they were before. The results of the conflagration were, in fact, most unsatisfactory; for, in the first place, our own property suffered considerable damage—a night shirt, the seat of a cane-bottomed chair, and a railway rug, being partially consumed by falling sparks. In the next place, the insects, as if to revenge themselves upon us, kept up a continual rain of young and half-grown larvæ, which they tore from the cells of their damaged nests and dropped upon our now repentant heads.

Our first evening in Prainha was an ever memorable one, on account of the strange incidents and characters which unfolded themselves for our amusement in an uninterrupted series. As soon as we had got our rooms fairly in order, one and another of the inhabitants of the village came and peeped in, or more boldly entered, and took stock of ourselves and our belongings. A youth paid us a long visit under the

pretence of arranging to supply us with fresh milk every morning; but although we closed with his offers, never a drop ever found its way to us. The lad had the impudence to come several times subsequently and renew the arrangement, but always with the same result. He tantalized us by driving cows with full udders past our doors, and then we saw no more of him until he turned up in the evening to inquire as usual if we would not like some milk the next morning!

A merry-faced negro slave with a lame leg now appeared upon the scene, and handed us a long written document, which was passed to the Interpreter for elucidation. The purport of it was that the mistress of the said slave wished to dispose of him, and considered that he was worth a sum equivalent to about 95*l*. He earnestly entreated us to buy him, but we explained that this was impossible. Subsequently it transpired that the document was forged, and that the negro, who was evidently very anxious to find another owner, had been accustomed to take it on board the steamers stopping at the place, and try to sell himself to the passengers. It was also said that he had formed the design of poisoning his mistress. For these offences the Subdelegado ordered him to be imprisoned in his own official residence (the gaol being doorless and otherwise insecure), and there he remained until we left Prainha. Our Interpreter was told that, in addition to this, the poor wretch had been sentenced to receive the extraordinary number of a gross of blows on the palm of the hand twice a day; but this seems incredible.

After the slave came dinner, which had been cooked for us by the wife of the Subdelegado, and sent up from the far end of the village. With it came Senhor de S—— himself, who had evidently been drinking our healths in the rum of the country, and was not as steady on his pins as he might have been. He came for the purpose of dining with us, and we could do no less than invite him to take a seat at our board. A board it literally was—in fact, a drawing-board supported upon a rough trestle--for we had no other table. Our seats were boxes and low ship-chairs, so that everyone appeared at a different elevation—some with their noses almost level with their plates, and others mounted up at an uncomfortable height. A dish of boiled beef was passed to the worthy official that he might help himself, but, after much fumbling, he only succeeded in securing some of the cabbage leaves.

Attention was now directed to an old man—the village shoemaker, as we subsequently learned—who had entered with him, and presented a most disreputable appearance. He was grizzly, dirty, and dressed in a grimy suit of a muddy brown colour, while a filthy rag of the same material was tied round the back of his head. So much did he shake and tremble, that he was obliged to clutch at the back of the first chair he came to for support, and this happened to be the Botanist's. His performances plainly indicated that he also was on the spree. He stooped so much, that at times his chin almost came into contact with Mr. Trail's head; threatened every moment to fall upon the floor; and kept pointing at the various dishes

upon the table, muttering something which we supposed to be an expression of his desire to partake. All were anxious to be rid of such an undesirable guest, and Mr. Trail most especially so, for his position was not an enviable one, with that dreadful old man in such very close proximity to his back. The Interpreter was therefore requested to ask the Subdelegado if the person he had introduced was a friend of his. An emphatic nod indicated that he owned him as such.

Here, then, was a predicament! We could not presume to turn out the chosen ally of the great man of the place, much as we wished to do it, and the Botanist hurried on with his dinner in order to vacate as soon as possible a position that was fast becoming untenable. Presently the old man grew more adventurous. He quitted his holdfast, and made for a dish of turtles' eggs standing on a box which did duty as a sideboard; but just as he was about to grasp them in his trembling hands, he tottered and fell with a crash into a heap of clean plates, knives and forks which had been prepared for dessert. This was more than could be endured, and when the old reprobate had been set upon his feet again, instead of leading him to his former position, it appeared much more desirable to take him to the door, and leave him there facing the wide Amazon prospect. To conduct him farther would scarcely have been a safe proceeding, for the doorstep was some two feet deep, and it was hard to see how he would get down it in any other fashion than headlong. This problem, however, he set himself at once to solve, while we looked on with

deep interest, not unmixed with anxiety. There were staggerings and totterings to and fro, violent jerks and spasms, complicated and extraordinary movements of every limb; finally, a sort of complete collapse upon himself, and then he was found to our great relief to be sitting safely upon the doorstep, with his feet on the roadway outside! The Subdelegado now intimated that he also must be going, and the two friends went down the village together, arm locked in arm, leaving us to indulge in a hearty laugh and finish our dinner in peace.

But the incidents of the day were not yet over. As we sat chatting in the twilight, enjoying the delicious coolness, a cry of such unwonted horror escaped from the lips of Senhor Vasconcellos that it sent a thrill through the whole of the party, for it was evident that something more terrible than a poor grasshopper had attracted his attention and excited his alarm. Gazing upward in the direction in which he pointed, we beheld a large snake, about five feet in length, with a bright yellow underpart, gliding along over our heads between the rafters and tiles of the roof, so slowly that its motion could only be detected by close observation. Now, until one gets used to such a companion, a serpent is not exactly the kind of inmate one likes to have loose about the house, and it need not be wondered at if the discovery of this creature caused some sensation. As for the Interpreter, however, he completely lost his self-possession in the circumstances, and strode up and down the room bewailing the unhappy fate which had brought him amidst such untoward surroundings. "What

shall I do?" he kept repeating. "O, my dear sirs, what shall I do? He must be killed, or to-night I do not sleep!" Thus urged, everyone hunted about for a weapon, while neighbours and passers by, hearing the commotion, dropped in to see what was going forward.

Another alarming incident at this stage gave us a fresh scare. A part of the wall dividing our house from the professor's suddenly fell with a crash to the floor; and tiny hands could be detected in the dim light busily engaged in enlarging the aperture by pushing down more of the lumps of clay. The matter had a truly ghostly appearance, but we guessed at once that the curiosity of the schoolmaster's children had suggested to them this plan for obtaining a view of our proceedings. When he was told of it next day, and asked not to allow the thing to occur again, he proceeded to whip all the children in the school except his own, who alone could have been the guilty parties; but the measure had the desired effect, for our privacy was not subsequently interfered with in that way.

The lamp had now been lit, and its light attracted swarms of mosquitoes, moths, and other insects, followed by bats in search of prey. A weapon long enough to reach the snake—for our room was lofty—had been secured in a stout reed, resembling a bamboo for lightness and toughness; but Mr. Trail was very unwilling that the animal should be roughly dealt with, as he wished to preserve it, unmutilated, among his collection of reptiles, accumulating day by day in jars and bottles. He therefore requested to be

allowed to try to snare it, and for this purpose, arranged a cunning noose at the end of the reed, which could be suddenly drawn tight by a cord held in his hand. Then mounting upon some high boxes, he placed the loop temptingly across the line of the snake's march, and waited patiently to see it go in and be caught. But the proverbial "wisdom of the serpent" would have been conspicuously absent had the creature consented to be so easily entrapped, and, as might have been guessed, it entirely declined to have anything to do with the arrangement.

One of the villagers who had called with turtles for sale now interposed, and said that it was a shame to injure the snake, for it was not only harmless but exceedingly useful in clearing the house of vermin. He added that in Pará a large sum would be given for it on that account; upon hearing which we all voted that it should not be interfered with further, except Senhor Vasconcellos, who would not agree to any such proposal. "I do not sleep to-night," he again urged in the quaint English which fell from him in moments of excitement. "I do not sleep to-night, if the beast is not killed." To satisfy him, an attempt was made to dislodge and beat the creature to death, but only with the result of causing it to quicken its pace a little, and push its way between the tiles to the outside of the roof. The absence of the reptile could not make our poor friend the Interpreter forget that it still lived. He was sure, he said, that it would return as soon as we had retired to rest; and one gloomy thought after another about the consequences that might ensue crossed his mind, and were communicated

to us at intervals. But the climax was reached when he stated, with profound gravity, his solemn conviction that the serpent had "a wife" at hand; "and then," he explained, "there must, in that case you see, be two of them!" Unfeeling as it may have been, we could not help receiving this fearful suggestion with shouts of laughter.

That night it was expected that one of the Company's steamers would pass up river, and have on board a packet of letters and newspapers for us. Up to this time, we had received no news from home since our departure from England; and we were naturally anxious lest the captain, in ignorance that we had shifted our quarters, should take the precious parcel on to Monte Alegré. It was agreed to watch therefore by turns through the night, each one taking two hours. Heavy rain, accompanied by thunder and lightning, set in about ten o'clock, and lasted until morning; but we observed with satisfaction that Senhor Vasconcellos slept soundly through it all, notwithstanding his fears about the snake, and was slumbering so sweetly at 5 A.M., when his watch should have commenced, that the Engineer had not the heart to awaken him, but continued his own look-out until daybreak. The steamer came whilst we were at breakfast, and brought the expected packet, which was eagerly seized, apportioned, and read.

There is no postal delivery in any of the Amazon towns or villages. Even Pará itself, with its 35,000 inhabitants, is no exception to this rule. It is supposed to be known to everyone when a mail steamer is due at the place, and whoever expects

a letter, must make application for it at the post office. Of course it often happens under this system, that letters lie unclaimed for weeks, and it is difficult to understand how they would ever all reach their destined owners, if neighbours were not obliging to each other in making known what they had learned respecting the contents of the mail bags. We once witnessed the interesting ceremony of the distribution of the letters after the arrival of the steamer at Prainha. The postmaster's little room was densely crowded, and nearly everyone pressed as closely as possible to the table at which that important personage was seated. Amongst the number we observed the Subdelegado, the disreputable old shoemaker, the tailor, and several Indians who were employed by us to assist in surveying. All listened breathlessly to the names that were called out, as the contents of the bag were drawn forth one by one; although some of them looked very unlikely characters to be possessed of correspondents. The schoolmaster was busily engaged in reading the different communications to those whose education had been so far neglected that they were unable to spell them out for themselves Only one female of the village seemed to expect a letter, and she not very confidently, for instead of pressing forward with the throng, she leaned back against the wall, pulling away at her pipe with an air of quiet satisfaction.

We had by no means seen the last of the snake whose first introduction to our acquaintance has been related. It returned a few evenings subsequently, when the rough treatment, received at our hands, had

been forgiven or forgotten; and thenceforward made its appearance pretty regularly at dusk. At first the Interpreter insisted upon having it driven out, and this was done for a few times to oblige him; but in the end even he tolerated it, and some of us got to look upon it almost as a friend and companion. We were told that, although not venomous, it was not advisable to be near the creature when much provoked, for it could dart out its tail with great rapidity, and deliver a smart blow like the lashing of a whip. It was wonderful how it managed to creep about among the numerous wasps' nests without getting stung, and it looked as if there must have been some understanding,or even friendly alliance, between the creatures.

Senhor Vasconcellos had, long before, written to Pará requesting to be recalled; but as a substitute could not at once be found, his miseries were prolonged through a few more weeks. Before our departure from Prainha, however, he was relieved by Mr. J. Cunningham, of Jamaica, who arrived by one of the steamers to take the position of interpreter; whereupon Senhor Vasconcellos very gladly returned to more civilized scenes. We were sorry to part with him, for we had found him a pleasant and gentlemanly companion, always ready to oblige when he could. He amused us, moreover, by the free manner in which he translated our abrupt English into sonorous magniloquent Portuguese, suited to the tastes of the natives; and, on the other hand, by the literal translations of Portuguese idioms into English; as, for instance, when he informed us one day that a neigh-

bour had "killed a death"—meaning thereby that he had slaughtered an ox, of which we might purchase a joint. He usually spoke our language with fluency, but, in moments of excitement, occasionally got into verbal difficulties. One evening, when he was hanging up his mosquito net, some one desired him to hurry, as he was obstructing the way; whereupon he replied, evidently with some thought of the proverb "More haste, less speed" in his mind, "O, my dear sir, the less I do not try to make more speed, the more I do not less try to make haste!" If we sometimes laughed at these things, as assuredly we did, and at our friend's ludicrous fear of insect pests, our laugh was never meant to be unkindly. We all esteemed him, and knew that his linguistic attainments were greater than our own, nor could we blame him for having tastes which inclined him rather to city life than to the free and simple existence we were leading here.

A few days after our arrival at Prainha, H. E. the Viscount Mauá, accompanied by Senhor Pimenta Bueno, whilst on his way up river, in a special steamer, for the purpose of seeing the Amazon and visiting the chief towns on its banks, stopped off the village in order to discuss with us the prospects of our expedition. His Excellency is one of the most influential men in Brazil, and having the welfare of his country thoroughly at heart, has done much to develop its trade and natural resources. He it was, in fact, who started that line of steamers upon the Amazon, which, ultimately becoming too extensive for a single ownership, had been taken up by the Amazon Steam Navigation Company, of which he was

at the time, and is now, the chairman. After a long conversation with him, carried on entirely in our own language, we retired impressed with the graciousness of his manner, the kindliness of his expressions towards us, and the value of the suggestions given for the further carrying out of our labours.

Much of our time, whilst at Prainha, was spent in the forest, cutting lines for the purpose of surveying, and marking out the boundaries of the Company's property. Although the trees were low in this part of the bush, it was not quite devoid of interest; for, here and there, we came upon a grove of wild plantains, a clump of elegant palms, or a cluster of flowering trees, which gave picturesqueness, or added a touch of colour to the scene. Two large swamps, near the village, contain groves of miriti palms, and the eye here ranged down long vistas, between their upright columnar stems supporting the massive heads, which consisted of large fan-shaped leaves. Animal life, though not abundant, except in the matter of insects, was not entirely wanting. Tortoises were fairly plentiful, and monkeys of various kinds were not unfrequently seen. Some of the latter were detected in the very act of plucking up the rods, and tearing in pieces the papers with which we had carefully marked out the straight course of a survey line—a proceeding to which they could only have been prompted by sheer love of mischief.

One ant-eater, of the smaller species, was captured by us. It ran up a little tree close to the narrow pathway, as we were going out to our work in the morning; whereupon one of the men fetched the

sapling down with a single blow of a cutlass, and laid hold of the creature by the tail. A trader of the village, who had joined us for the day for the sake of amusement, wished to take it home alive, and proceeded to cut a quantity of small sipos—the natural cordage of the forest—for the purpose of binding its feet together. He was kneeling on the ground, busily engaged in securing it, when unfortunately the beast managed to insert its sharp-hooked claws into the backs of his hands, from which they were with difficulty extricated, and not until deep gashes had been produced, which bled profusely. The man was no sooner set free from these formidable weapons, than he gazed for a moment at his wounds; then, filled with fury at the sight, seized a cutlass, almost severed the ant-eater's head from its body at one blow, and flung the carcase far away from him among the bushes.

Snakes were not as common as might have been expected, or, at any rate, were not often seen. A glimpse was had one day, however, of a fine fellow—a member of the boa tribe. It was of a slaty-bluish colour, and was lying on a patch of sand stretched out in a perfectly straight line, except that its head was held a little off the ground. We particularly noticed its bright vermilion tongue, which was being darted in and out with great rapidity. The speed of "greased lightning" is scarcely too bold an expression for describing the rate at which the serpent made off when it caught sight of us.

The swamps before referred to were full of large fishes, which the men easily captured by wading a

little way into the shallow water, and slashing right and left with a cutlass. When the breakfast hour came round, they were roasted on sticks, and formed a pleasant addition to the meal. Occasionally we saw the tracks of deer, jaguars, and tapirs; but never managed, whilst at Prainha, to get a view of these animals. Flocks of parrots frequently screamed in the trees overhead, and humming-birds darted about in the more open spaces.

With so much to interest us, a day in the forest ought to have been exceedingly enjoyable, but unfortunately the plague of insects greatly diminished, if it could not wholly remove, the charm of the thing. In the first place, there were of course mosquitoes. We already tire of mentioning these, but, as a matter of fact, the shade of the trees was their haunt by day, just as the houses were their places of assembly at night; anyone therefore who spent his nights at home and his days in the forest, simply kept in the company of the mosquitoes throughout the twenty-four hours. In the next place, there were wasps of all sorts. Some little ones made nests under a single leaf, and could be removed without much danger, by being gently whistled to while the twig was carefully broken off. Others had large dwellings—some round, and some elongated—in the trees, looking like Dutch cheeses or Scotch haggis puddings; and in cutting our way onward, these necessarily got an occasional shake, when down came the fierce occupants, and stung us fearfully, nor could we pass by until they had been burnt out. Ants were in far greater variety than wasps, and had a large assortment of methods

for inflicting torture. Some swarmed upon us in myriads, dropping from the bushes overhead, or running towards us from all points of the compass; but contented themselves with simply tickling. Others gave forth a most sickening odour, that became at times almost unbearable; but most of the ant tribe bit and stung savagely. One huge kind, fully three-quarters of an inch in length, had to be very carefully guarded against, as their sting is said to be almost maddening. They had holes at the roots of certain bushes, and rushed out when the branches were shaken. When it was necessary for the men to continue their cutting in the vicinity, they would at once brush aside any leaves that might afford them cover, and set a boy to watch that they did not make a stealthy advance towards their bare feet. Bees formed another class of pests. Some tiny ones would cause a constant annoyance during the hottest part of the day by persisting in drinking the moisture of our eyes. Larger ones entangled themselves in our hair, and bit our heads; while there was a very large kind—more like a beetle than a bee—which made a most valiant defence of its home. This sort went in couples, and built their nests in hollow trees. When we passed near, they sallied forth, and swung round us in great circles with a loud humming noise, like the sound of a steam fan; swooping down now and again upon one or other of the party—not to bite or sting, but to hit a blow by the impetus of their motion that would be long remembered by the unlucky receiver. The figure we cut on these occasions was not heroic, for it was very laughable to see one

after another diligently ducking to avoid the assailants. Sometimes we could not get by their place of abode except by strategy. Retiring a little way, and watching them return to their nest, we made a rush as soon as they had got in, and stopped up their hole with a wooden plug. Thus effectually shut up, they could be heard humming in a terrible way inside; but before they could eat themselves out, we were far distant. In some parts of the forest, where it bordered upon the savanna, clouds of flies rose up out of the bushes, and tickled our faces so persistently that it was difficult to look through our surveying instruments, or record the observations. But the worst pest of all at Prainha—for almost every place has its special plague—was that of the ticks. These disgusting creatures were of three sizes, the smallest scarcely larger than dust, and the biggest nearly the size of a pearl button. The bushes swarmed with them, all standing on their hinder legs to be ready to lay hold of us with the others as we passed by; and, when we stood still for a moment, they could be seen hastening towards us from all directions. It took us a full hour, when we arrived home in the evening, to pick these loathsome insects from our clothes.

This description may give some faint idea of the delightfulness of a day in a tropical forest; of the way in which the novelty and beauty of the scene is counterbalanced by a hundred drawbacks; and of the constant vigilance with which it is necessary to watch and do battle against a host of tiny, but by no means despicable, enemies. Insects were the supreme rulers; the whole creation groaned because of them; every

beast or bird had its own peculiar parasites and tormentors; and it was hardly possible to find upon any of the trees or bushes a perfect leaf—all were marked, galled, eaten into holes, or twisted out of shape by these irrepressible troublers.

At the close of the day's labours, carried out under such unpleasant conditions, it was most delightful to have a swim from the beach below our dwelling, out into the waves of the Amazon; notwithstanding the alligators that were usually to be seen at some distance from the shore, keeping vigilant watch in the hope of a meal. Often it happened that the kindly villagers ran down, or shouted from the top of the cliff, to warn us that one of these beasts had turned round, and was coming in our direction; but we were always careful to observe their movements, and the well-meant caution was hardly required.

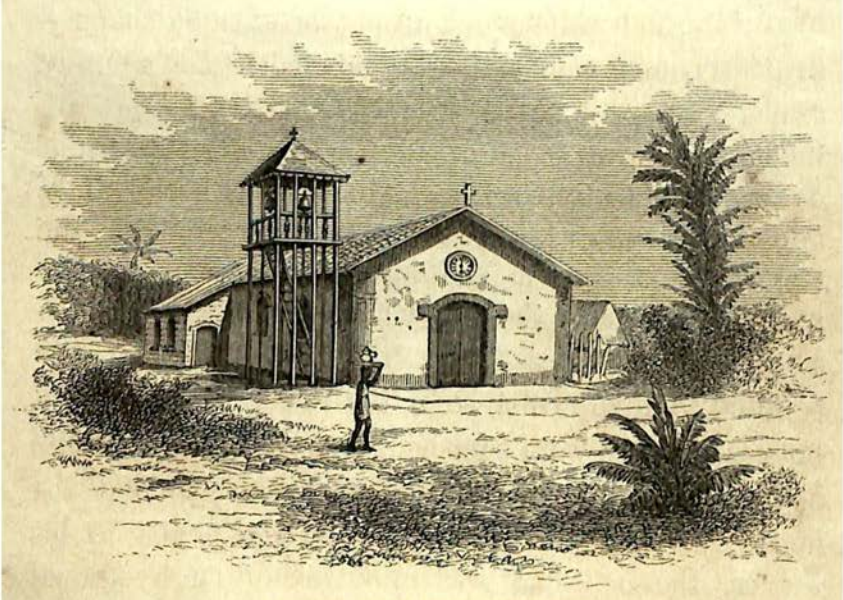
Equally pleasant was the dinner succeeding the bath, although the fare was seldom luxurious, for we depended more upon potted meats during our stay at Prainha, than in any other part of the time spent in the country. The Subdelegado's wife continued to cook our food for us, although this was hardly a convenient arrangement, on account of the great distance between her residence and ours. However, it seemed to be impossible to make any other in the circumstances. A poor little slave—half-Indian half-negro—waited upon us, and went to and fro with the provisions and dishes. He usually wore only a little blue cotton shirt, so short that it scarcely reached his waist; but occasionally presented himself before us with absolutely nothing. On expostulating with him

for coming in this unfledged condition, to which we objected on principle, he explained to us that it was in consequence of his garment being at the time in the process of washing, and that he had no other in the world to replace it. Among the pictures which memory flashes across the mind's eye in connection with our quiet life in this out-of-the-world place, not one perhaps recurs more frequently or vividly than the scene beheld by us, almost daily, when we stood at the door of our house, shading our eyes with our hands from the glare of the tropical sunset, and looked down the village street to assure ourselves that dinner was coming. Then would appear the figure of the little slave, creeping slowly towards us with the trays of dishes upon his head; the whole surmounted by a huge blue-and-white china teapot of antique shape—evidently much venerated in the Subdelegado's family circle.

Our young attendant experienced a terrible fright on one occasion when washing up for us some plates and dishes. He was performing this work in the storeroom, close to the hanging shelf which we had so providently arranged there, when suddenly it fell with a crash, hardly less noisy than what might have resulted from the collapse of the house itself. Many bottles and jars were smashed, and the whole contents of the shelf scattered confusedly far and near over the floor. Totally unprepared for such a shock to his nerves, the poor lad was found shedding hysterical tears. An inquiry into the cause of the accident showed that one of the supporting ropes had happened to cross a gallery constructed by white ants along the

beam. Their passage had thus been completely blocked, but the patient insects had slowly eaten away the obstacle, so evenly that it looked as if the rope had been severed by a very sharp knife.

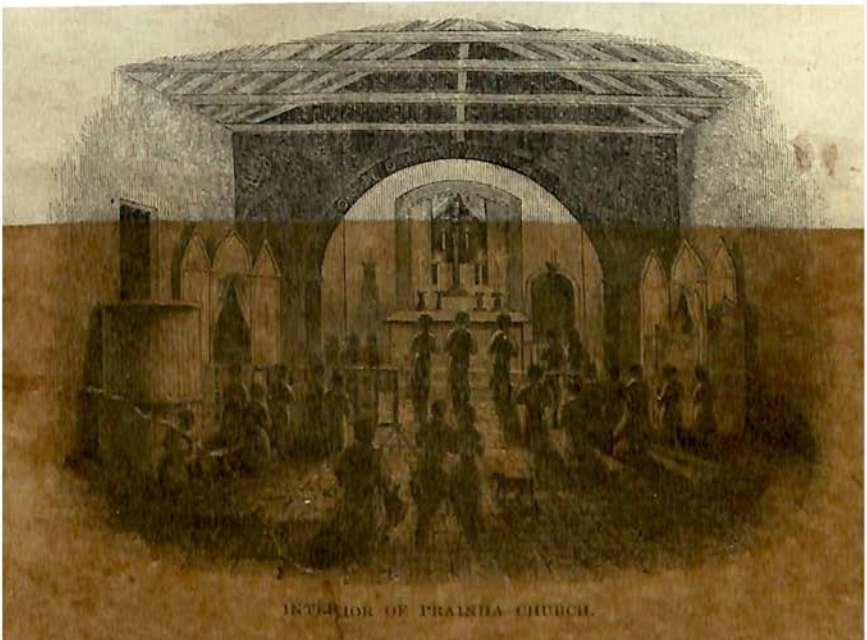
Prainha boasted of only one shop. It was of a general character, and enabled us to replenish our stores as occasion required. A Frenchman—Monsieur Block—was the proprietor, and was exceedingly useful to us because he spoke English fluently; was well acquainted with all the people and resources of the village, and very obliging. We betook ourselves to him in every emergency respecting want of men or means of locomotion, and it is hard to conjecture what we should have done without his ready help.



EXTERIOR OF PRAINHA CHURCH.

Half-way down the village, and facing the water, stood the church, of which we give exterior and interior views—not, it may well be imagined, on

account of the architectural grandeur of this structure, but because it happens to be the counterpart of what may be found in the smaller settlements up and down the whole Amazon. It must not be supposed, however, as might be inferred from the sketch, that there is a real clock over the main door, giving the accurate hour to the people of the village, as Big Ben does to the inhabitants of London. What appears as such is a mere piece of decoration—the painted semblance of a clock face. Ecclesiastical time at Prainha stands always at half-past twelve precisely; but there is some advantage in this arrangement, for it must at least be right twice during the twenty-four hours—



INTERIOR OF PRAINHA CHURCH.

which is more than can be said for most timekeepers. Perhaps there is even some deep symbolical meaning in the particular hour chosen, if one could fathom it

Only the front of the church is plastered and decorated —the sides show the rough materials of the adobe walls, and the windows are unglazed.

In this humble edifice service is held on the evenings of the principal Roman Catholic festivals, but not often on Sundays. The congregation usually embraced a large proportion of the inhabitants of the village, and was exceedingly devout in behaviour. No seats are provided, and the worshippers have either to kneel or stand, but the latter posture was selected only by the men. These seldom cared to venture far from the door—indeed most of them, ourselves among the number, remained outside bareheaded under the tropical sky. Prainha, like all the smaller Amazon settlements, has no resident priest; the service, therefore, was not mass, but a simple litany, being thus, in the proper sense of the word, strictly congregational. A staid man of the village—dressed in no gorgeous vestments, but in the common flannel-shirt and trowsers of everyday life—knelt at the altar, supported on either side by two younger men, and led off in a singularly nasal tone the monotonous but plaintive chanting of which the entire worship consisted. The refrain was taken up by the boys, who knelt on the lower steps of the altar, and whose attention was otherwise pretty fully occupied in keeping the mosquitoes from attacking their bare feet. The women, who occupied the body of the church, next took it up, and passed it on to the men standing at the door, who returned it to those at the altar, when it was started for a second round. At intervals of a quarter of an hour, one of the young men leading the service tinkled

a little bell; whereupon some one in the rickety belfry outside caught the signal, and set the large bells there clanging for a minute or two. On very special occasions this part of the performance was rendered more striking by the discharge of some very noisy rockets, designed, it is said, together with the clamour of the bells, to make known in heaven the precise progress of the service.

It may be perhaps expected that we should give some criticism of the dresses of the female portion of the congregation, according to the custom of church-goers from time immemorial. The task is a simple one, for we can dispose at once of the important matter of headdresses by saying that the ladies wore none, or at the most a silk handkerchief thrown carelessly over their raven locks. For the rest, their attire consisted only of a body, or jacket, of light-coloured cotton print, and a skirt of the same material. One or two of the richer members of the congregation wore muslin. There were signs that the dresses were acquired ready made and not to measure, for occasionally the jacket did not reach the top of the train by some inches, and a strip of brown waist was exposed to view in the interval. One stout female had conspicuous difficulties with her costume, for the body could only be made to meet at the top and bottom, thus revealing a lozenge-shaped expanse of deeply-toned skin. A similar triangular patch of back could also be seen, in consequence of the refusal of the band of the skirt to join extremities, except by being lengthened out with strings. These trifles might attract considerable attention in a fashionable London

audience, but counted for nothing among the primitive people of Prainha.

Many babies attended church, some in the care of the women, and others looked after by the boys. In any case a mat or pillow was brought with the child, and on this it was laid out on its back and placed on the floor by the side of its attendant. The behaviour of these infants was always exemplary. A dog of the village was of an exceedingly religious turn of mind —perhaps because of a grievous affliction that had befallen it in the matter of a lame leg—and punctually attended the various services, going from worshipper to worshipper and licking the faces of the babies. It was not interfered with except when the disreputable old shoemaker visited the church; but he made it his business when present to go in at intervals and chevy the poor animal out.

On the whole, that portion of the congregation standing without the door had by far the best position; for they could look around on the great temple of nature whilst they glanced occasionally into the humbler structure of man's rearing, and the contrast could not fail to awaken some strange thoughts. The scene still returns to our mind's eye as it appeared one festal evening, when a crescent moon hung over the Amazon, holding in its embrace the partially illuminated remainder of the satellite; while strange fantastically-shaped clouds were piled up on the far horizon, from which darted vivid and incessant lightnings. The eye took in the magical beauty of all this wide expanse, and the ear noted the musical plash of the waves on the beach below; then, turning round,

we were struck with the dingy look of the little church with its mouldy smell, and the sad monotony of the weirdly nasal chant. There is something affecting, however, in the constancy with which these people have stuck to their simple worship, without priests, teachers or scriptures to prompt them to it, or to keep them enlightened respecting its meaning.

In the cliff in front of Prainha is an interesting section of the recent deposit, containing well-preserved leaves, and a layer of peaty matter. A short distance back of the town is a low mass of white Ereré sandstone, which most probably indicates the existence of that rock beneath the recent deposit in this part.

An exceeding virulent form of intermittent fever passed through the village towards the end of our stay in it, and made almost the entire circuit of the inhabitants. M. Block and every member of his household were laid up with it simultaneously. None of the Subdelegado's family escaped its attacks. The tailor came one morning to our door with his head bound up, and showed for a moment a sallow, haggard countenance; then, merely ejaculating "I have the fever," crept back again to his own house. We heard of no deaths, but many of the people were reduced almost to skeletons. None of the Commission had the slightest touch of it, but one of our servants—a Portuguese sailor, who had been sent up to us from Pará—evidently took away the seeds with him, and suffered an exceedingly severe attack subsequently at Santarem.

## CHAPTER V.

### EXCURSIONS FROM PRAINHA.

Start for Jauari River — Strange Crew — Frightened Dog — Negro Dwelling — Difficulties with Crew — Casa de Bicho — Return Journey — Second Journey from Prainha — Paruaquara River — A Wasp in Boat's Cabin — A Fasenda — Swallow's Nest — A Cacoal — Third Journey from Prainha — Crossing the Amazon — Uruara River — Senhor Gomez's — Monkeys — Night Alarms — Adventure with Wasps — Return to Prainha.

AFTER experiencing the usual difficulties and delays in obtaining means of transit, we were at last provided by Senhor de S—— with a boat and scratch crew, in which two of us—the Chief and Botanist—started for the Jauari river, a small tributary flowing into the Amazon to the eastward of Prainha. Senhor Vasconcellos, who was not feeling well, did not accompany us, consequently we were without an interpreter.

Our boat was an old shell or dugout, called a *montaria*, and the crew consisted of the queerest lot of fellows that we ever had the misfortune to employ. The steersman, a half mulatto, who held the high position of postmaster at Prainha, was a curious individual, and very much mutilated, having lost two fingers of one hand and the foot of one leg. He hobbled into the stern sheets of the boat by aid of his crutch, which he then deposited amongst the poles of

the sail, where it looked as if it belonged to them, in its resemblance to a main boom. Of the other three, one was a conceited youth, the son-and-heir of the Subdelegado, another an old Zambo slave, while the third was a boy of only thirteen years.

The slave did paddle a little, but the other three were almost useless, being the laziest of all lazy scoundrels. They would pull a stroke or two, and then stop to look at their hands, which seemed suddenly to have assumed some degree of importance, from the manner in which they gazed upon them. An arrow that they had in the boat appeared to be the subject of a vast amount of criticism, for one or the other was continually stopping to pick it up, examine, and remark upon its merits or demerits. Expostulations were in vain, and did not stir them to greater efforts. When one stopped, all stopped, so that our progress was slow in the extreme; and it was more by the help of the current than the work of the crew, that we eventually arrived by noon at the estuary of the Jauari. Entering it we sailed westward over a lake-like expanse of water, and then came to the actual river, a narrow winding stream. Up it our progress was as slow as it could be made by our wretched crew; in fact, at times we only held our own against the current. We passed a summer fishing hut on the left, and some time after a wide branch—the Maripa—on the right; finally, we came to open grass lands, where there was a fasenda, with lots of bellowing cattle, penned close to its house, and a few dirty-looking people about.

Our men wanted us to stop there for the night, but

as the roaring of the cattle would not be conducive to sleep, nor the presence of a host of savage curs to our convenience, we declined to agree to the arrangement, and camped in the forest on the river's edge, a little farther on.

The following morning broke dull and cloudy as we left camp and continued our journey. Large trees lined either bank, and threw a deep shade over the narrow river; while inland were extensive grass-grown plains. Soon after starting, rain began to fall, lightly at first, but heavily after a time, and one or two loud peals of thunder warned us to seek shelter.

We passed some solid ground on the west bank some few feet above the level of flood mark in the wet season; the first unflooded land on this river from its mouth up. From that onwards we passed four or five squatters' huts, and, at the last one, were advised by our crew to land and take shelter for the day, as there was every probability of its raining till nightfall. This advice seeming good, we landed at a large opening cut in the forest, at the far end of which stood a house.

Whilst we were overseeing the landing of our things, a large yellow dog came trotting down the pathway from the house, and, having its nose close to the ground, was evidently unaware of our presence. As it approached to within a few yards, Mr. Trail, who was arrayed in a long white mackintosh, wheeled round and fixed his eyes upon it just at the instant it caught sight of him. Tossing its head, it gazed wildly and fixedly at him for a short time, with

horror depicted on its countenance. It evidently did not know at first what to make out of the Botanist thus arrayed, and then seemed to conclude that he was a ghost, for with a frightened yelp it turned and fled along the pathway with lightning speed, its course appearing to us like a long yellow stripe. Regaining the house it wheeled round and barked furiously, but by the time we arrived there it had entirely disappeared, nor did we see it again.

The house was occupied by a black man and woman, two young negresses, and a few Tapuyus. The latter, who are the direct descendants of the original Indian inhabitants of the Amazon valley, are light yellow in colour, with coarse straight hair, strong, squat figures, and have all been civilized. Behind the house came the forest, under the shade of which, in the immediate vicinity, flourished a number of fine coffee trees; and around were a few fruit trees and garden flowers, such as bachelor's buttons, coxcombs and marigolds, while over the open space grew the mandioca plant.

Pigs and fowls roamed about all over the place, the latter being of a peculiar variety, with no quill feathers in their wings—an invaluable breed to keep in the vicinity of a low-fenced garden.

Our great difficulty at the time, when away from our Interpreter, was to understand and make ourselves understood in Portuguese. People would persist in trying to converse with us; and we were just able, after a great deal of trouble, to make out each other's meaning. A black woman of the place addressing us as Brancos (Whites), made a long harangue in

Portuguese, not one word of which could we make out; we therefore remarked to her in our native tongue, that if she would be kind enough to address us in English, we should be able to understand what she said. She seemed so intensely tickled at the sound of our strange language, that she roared with laughter, ran across the house, and threw herself theatrically against a ladder, where she remained for some time in a sloping position fairly convulsed with merriment.

We spent the afternoon in watching the weather and observing every change in the sky. It was not until 4 P.M. that the rain ceased, and we were able to go out into the open air; by which time it was too late to resume our journey.

At night a corner of the one room of the house was assigned to us to hang our hammocks in, and there we slept; the rest of the place being occupied by ten of the inhabitants. Amongst these was a woman suffering from fever and ague, who groaned continually; and a child that awoke once an hour to cry, until whacked into quietness by its mother. Thus the night passed away, and the following morning found us once more proceeding slowly up river at a snail's pace, by tree-covered banks, and along short monotonous reaches of the stream.

Our crew worked less than ever, and would not pay the slightest attention to our orders to pull harder. We felt inclined to pitch the miserable lot overboard, but refrained from doing so because we knew that they could all swim. To add to other disagreeables, the crippled steersman had a horrid fashion of wagging

his sound leg, communicating an unpleasant vibration to the canoe, which was very trying to our nerves. On coming to the head of the tidal portion of the river where it shallowed considerably, running with a correspondingly rapid current, our men got poles, and pushed the boat along for a time; but, tiring of that, they took to the paddles and conversation again.

The only sound that smote upon the stillness of the air was the peculiar whistle of the green-heart birds, which resembled the words *pi-pi-cho;* whilst the chief signs of visible animal life were the stinking pheasants, balancing themselves on the tree branches over the water, or flapping heavily about. Our crew brought the wonderful arrow into requisition about this time, and one of them shot a large Salempanter lizard, which they cooked and devoured. They also stopped repeatedly to have shots with the same arrow at a species of hourie fish, which lay close to the surface, just under the leaves at the edges of the mud banks, and succeeded in hitting one or two.

Stopping on one occasion to examine some rocks, we saw a hole in a sand cliff, which our men said was a "Casa de bicho" (house of a beast). Bicho is the term applied by the people on the Amazon to all forms of animal life that are undomesticated, uncommon, or hurtful—for instance, spiders, snails, ticks, jiggers, water dogs, bushhogs, or tapirs, are all *bichos.* When we were shoving off from the rocks to resume our journey, the old negro slave lost his balance, fell overboard, and disappeared, much to our amusement. As he popped up again gasping for breath, and was

scrambling into the boat, a shrill angry cry was heard behind us issuing from a water dog, the owner of the casa, which was seen swimming rapidly towards us, showing its teeth. This frightened the old man so, that, redoubling his exertions, he managed to get over the side, and rolled into the bottom of the boat just as the water dog came up close to us.

That night we camped near a sand cliff, up which we climbed upon the following morning. From a hill, a quarter of a mile back from the river, upon the savanna, we obtained a fine view of the surrounding country, which showed the river flowing in a narrow valley bounded by an undulating wooded tract. Some ten miles off to the northward lay a high mountain called Jauari, while the flat-topped heights of Paruaquara were beautifully distinct at a distance of some twelve miles from us.

Beyond our camping place on the river, it was impossible for us to go; as our crew had consumed all the provisions they had brought, and had nothing more to eat. We therefore started down stream assisted by a fine strong current.

Upon the morning of the second day of our descent, so little advance was being made that we took possession of the seats and paddles of the two youths, and, assisted at times by the slave, paddled without intermission to the mouth of the river. The crew then poled and paddled by fits and starts, while we sat on our respective seats with the fierce rays of the sun beating down upon us, and with hardly any movement of the air to allay the intense heat. It was but a poor consolation to reflect that we were moving

towards our destination at the rate of one mile per hour! That afternoon was a long one, and we were beginning to think that it was never going to draw to a close, when we rounded a wooded point, and beheld —oh welcome sight—the little village of Prainha before us. With feelings of unbounded joy we vacated our hard seats, and jumping ashore, made rapidly for the shelter of our comfortable, airy quarters.

The second journey we made from Prainha was by boat to the Paruaquara river; not, however, with a crew furnished by the Subdelegado, but by one procured for us by our worthy friend Monsieur Block. The boat he let us have was his own, and was provided with a large well-built wooden cabin, very superior to the semi-cylindrical palm-matting affairs on ordinary montarias. Monsieur Block also hired us two Tapuyus, who were in his employ, to row us, and a young Brazilian to steer; but the latter having that day met with a severe family affliction, had imbibed too much cachaça in order to drown his sorrows, and at the last moment was too drunk to accompany us.

Our party, consisting of the Chief and Botanist, started at eight o'clock in the evening so as to escape the strong breeze that blows up the Amazon by day, but dies out at night. With the two men rowing, and our servant William steering, we gained the mid Amazon, and, hoisting sail, beat against the light breeze that blew from the north-east, drifting at the same time with the current down the river. The water was extremely rough, owing to a wind and rain squall having passed over it before we started.

Our boat was not long, but very wide and heavy, a

mere tub, in fact, as far as speed was concerned, but on the whole comfortable and not crank. The first tack we made was almost across to an island, where we went about; then we sailed back, being swept pretty rapidly down towards our destination. The night was dark at first, and the water and tree-clothed islands loomed large and black; presently the clouds broke, and a dull glimmering of moonlight spread over everything.

We sat on the thwarts, in front of the cabin, enjoying the cool night air and some pleasant conversation; after which Mr. Trail crawled into the cabin to retire for the night. He had hardly stowed himself away before we heard violent struggling, followed by a heavy blow, as his head struck against the cabin roof, and finally his voice in piteous accents saying, "I've been stung by a marabunta." He soon scuttled backwards out of the cabin, and, though smarting with pain, joined us in laughing at the affair. Presently in the dim light, discerning the wretched marabunta crawling on his coat-collar, we brushed it off on to the gunwale, from which it was quickly dislodged, and washed clear of us by a wave. We then struck a light, and inspected the cabin, finding to our satisfaction that there were no more wasps, but only a huge spider and a few ants.

At six o'clock on the following morning we entered the mouth of the Paruaquara, passing through a network of muddy channels to reach it, and found ourselves on a fine black water river, up which we sailed in a westerly direction.

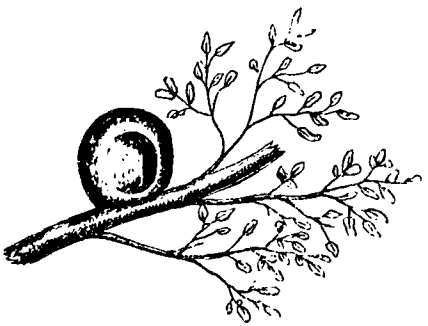
About three-quarters of a mile on we landed at a cattle fasenda, owned by an old spectacled Brazilian. His house was built on posts, which raised its floor some three feet above the level of the low land bordering the river, showing that during the rainy season the whole neighbourhood is under water. A great area of low-lying grass country stretched away almost to the foot of Paruaquara mountain, upon which grazed herds of cattle. Wishing to visit the mountain, we asked the owner of this place to let us have horses for the journey, but he refused, saying that the country was too swampy to cross, and there was no pathway.

As we ascended, the river became rapidly narrower, until after passing a large branch it was just wide enough to enable us to use the oars. At night we stopped near an old shed, on the opposite side of the river to a small fasenda, preferring the quietness and coolness of the spot to the noise and heat of the house. The inhabitants, who were all cattle-minders and their families, said that the shed was full of marabuntas, which statement we found to be perfectly correct, and therefore had to hang our hammocks, in the open air, to posts driven into the clayey soil. The house on the opposite side of the river consisted of a thatched roof, supported by numerous upright posts, with a floor raised a few feet from the ground. One end portion was walled in with plaited palm leaves, forming a mosquito-tight sleeping apartment. The ground all round was beaten down, and made bare, by the feet of many cattle and horses; and garnished by the bleached bones and horned skulls of departed

animals. Amongst these hopped the unclean urubus, while gaunt dogs prowled about ever ready to attack a passing stranger. Behind came a large corral for penning cattle, attached to which was a smaller one containing a number of young calves.

Being unable to obtain horses we continued our journey next day for a short distance, coming to a spot where matted grasses and weeds growing on the surface of the water shut it up to the further passage of our boat. Standing on the low banks of the river we could see a vast, level, grass-clothed plain, stretching away northward almost to the foot of the distant mountains.

Upon the branches of the alders bordering the water's edge, in this part, were numerous and curious clay nests of a small grey swallow. They were spherical in form, and furnished with a screen at the opening, which prevented a sight being obtained of the eggs inside.



SWALLOW'S NEST.

Having fulfilled our mission, and being unable to proceed any farther, we turned about, and descended the river till nightfall, when we landed at a cacoal on

the banks of one of the muddy channels, between the mouth of the river and the Amazon. Our request that we might be allowed permission to remain there for the night was readily granted by the owner, a little old man; and we were made welcome in the open portion of the house, where the cooking and day work was done. The family consisted of the old man, his wife, son, and pretty daughter. Lighting one of the oil-lamps of the country—an earthenware, home-made affair, shaped somewhat like the dish used in civilized life for melted butter,—they kindly watched us eat our dinner of potted meat and tough biscuit, off our tin plates; and, after a futile attempt to converse with us, retired to their sleeping apartment for the night.

Next morning we went over the cacoal, or chocolate plantation, with the old man, who informed us that he had 3000 cacoa trees, from which he obtained 50 arrobas (bushels) of chocolate bean per annum. His cacoal being like those seen everywhere on the banks of the Amazon and its side channels, a description of it will give a fair idea of all.

The rich alluvium forming the banks of the great river attains its highest elevation along the margin, where it forms a strip of land from 20 to 50 yards in width, just above the level of the water in times of flood. Behind it the land falls slightly, and, where the alluvium is extensive, forms a wide tract of swamp, supporting a growth of forest trees and tangled masses of vegetation. On this narrow elevated strip the cacoals are placed, the chocolate trees being planted at certain distances apart, in regular straight

rows. Their thick leafy tops, intermingling above, form a deliciously cool shade beneath, upon which nothing grows, but where it is pleasant to stroll even during the mid-day heat. In so doing for the first time, one is surprised to see the large yellow fruit attached immediately to the stem and branches of these trees, instead of at the ends of twigs, after the orthodox fashion of fruit. The beans, which are the valuable part, are enveloped in a juicy pulp contained in a segmented rind.

These narrow bands of cacoa trees bordering the edges of the Lower Amazon form one of the most marked and characteristic features of its scenery. Their light-green leaves, tinged with brown, contrast in a pleasing manner with the tall dark wall of forest foliage behind. Plantations of mandioca (cassava), maize, and sugar-cane frequently replace the cacoa trees in these situations; and the little palm-thatched houses surrounded by this cultivation lend a civilized air to the scene.

Before we left the place the pretty daughter of our host presented us each with small nosegays, composed of marigolds, pinks, bachelor's buttons, and variegated leaves; for which fortunately we had a sufficient command of Portuguese to be able to thank her. It strikes one as singular that the flowers grown by these people are all such as are common in English cottage gardens, while we should naturally expect to see them domesticate some of their own beautiful, blossoming, wild shrubs and creepers. Here also, as in other parts of the world, no flower is more highly prized than the rose.

Sailing slowly all day with a light breeze against the strong current of the Amazon, we only passed the mouth of the Jauari river at sunset. Taking turns at the oars, we worked hard, and reached Prainha at 9.30 P.M. On the way up, in passing a white sand beach, close in shore, we saw in the bright moonlight a small tiger trot across the open, from one thicket to the other.

One more district in the vicinity of Prainha—that of the Uruara river on the opposite side of the Amazon—still remained to be examined, and again we had recourse to Monsieur Block to provide us with the means of transport. All he could do this time was to furnish us with his boat, and get one man, a native of Uruara, to act as *crew*, but only for the voyage over. Thus it will be observed, that the longer we stayed in a place, the more precarious became our chances of getting about. At Monte Alegré, on our last journey, we were obliged to act as our own crew, and here again we were reduced almost to the same low ebb.

After due preparation we hoisted sail on the Frenchman's craft on the morning of December the 10th, and, with a free sheet, scudded rapidly from the shore to cross the Amazon. Soon we were nearing mid-channel between Prainha and a large island, where the full force of the current, being met by the strong breeze, produced a chopping sea, causing our old boat to dodge up and down in a most appalling manner. The current having swept us down a long way, we made the island at least half a mile below its upper point, which we ought to have weathered. Running

close in shore in eddying water, we sailed up along its side, and, rounding its end, met a fearful current which at times brought our boat to a stand-still, although the breeze was strong and fair. We passed a huge cayman swimming across, which glared at us with hungry eyes; and then we started a flock of geese from a grassy point.

After a sail of five miles from Prainha, we entered the mouth of a channel leading into the Uruara, at the head of a small delta. The wind being fair, we again hoisted sail, and glided swiftly up its dark waters. Both banks were clothed with forests for about two miles up, but beyond that the river flowed through low flooded marsh lands, covered with coarse grass and reeds. At the mouth of a small tributary, where there were belts of wood, we heard some black howling monkeys serenading, whose cries somewhat resembled the sounds produced by the sharpening of an axe on a grindstone.

We rowed on all that afternoon and evening, being unable to find any dry ground on which to camp, and witnessed a most beautiful sunset—the orb sinking to rest behind the great watery grass-covered plain, beyond a long expanse of river whose surface resembled a sheet of glass.

At a late hour, we reached the landing place of a cattle fasenda, built upon a slightly elevated patch of land close to the water's edge, our approach to which was announced by the barking of many dogs. As our boat's prow touched the land, the proprietor—a Brazilian, named Senhor Raimundo Gomez—dimly seen in the starlight, greeted us, and cordially invited

us to land and make his house our home for the night. The dogs being licked into comparative silence and submission, we landed, and were told not to stand upon any ceremony, so we *sat* down on empty boxes, which did duty for chairs.

In coming along, we had eaten our dinner by lamplight on the top of our boat's cabin, and had now nothing further to do than converse a little with our host, and then turn into our hammocks. We slept in the open portion of the house, where pigs, a duck, and a lot of snappish curs, roamed at large. The dwelling was closely surrounded by a thin pole fence, beyond which a herd of cattle kept tramping about, lowing and bellowing. The effect produced upon our imaginations by the close proximity of this lot of plunging, restless animals, in the thick darkness at our very elbows, was to engender a feeling of insecurity; while the grunting and rooting of pigs beneath our hammocks promoted a sensation of disgust.

Next morning we departed on our way, laden with bottles of milk kindly given us by Senhor Gomez, on the sole condition that we returned the bottles on our way down, they being scarce and valuable articles in this out-of-the-way place. Running on before a fine breeze, with partially inundated grass land stretching for miles and miles on either side, we came after a time to what is here called "terra firma," that is, land which is never covered by water during the rainy season. Here there were two houses, called Povoado, at which we landed, our hired man having to put ashore two bags of salt which he had brought over from Monsieur Block.

Two old Senhoras and a large flock of fowls were the only occupants of the place at the time. The Senhoras seemed to have a deeply rooted attachment for their feathered friends, for no reasonable offer of money could induce them to part with either a tough or tender member of their flock.

Here there was a quantity of tobacco leaves strung on cords to dry. All over the Amazon valley tobacco is grown and manufactured, the leaves being bound round together with the split stem of a climbing palm, into long rods of about two inches in diameter, and four or five feet in length, tapering off to a point at both ends. This tobacco has a peculiar flavour, but is on the whole a good article, and tastes its best in a cigarette.

Numbers of fine large mango and other fruit trees grew about the houses, showing by their presence a certain amount of forethought, on the part of former proprietors of the place, for the welfare of their descendants. It often struck us as strange that in a country like that of the Amazon valley, where every kind of tropical fruit-tree would flourish if planted, so few of them are to be met with, and those only of the commonest kinds. For instance, there are many old-established villages, where there is not a single orange or mango to be met with, and where a lime or two, a cashew, and a few worthless guavas, are the sole representatives of the fruit-bearing trees. The fact seems to be that the people are either too indolent to plant them, or conclude that it is not their place to supply those that come after them with such luxuries.

Not far beyond Povoado the grass lands terminated, and forests lined both banks of the river from that onwards. Here and there, in rowing up, we passed little houses and plantations nestling on the river's edge; and late in the afternoon landed at one, where permission having been cordially given, we put up for the night. Senhor Manoel de Leitas, the son-in-law of the owner of the place, was a very decent fellow, and gave us through the Interpreter much information regarding the district. In describing the wild animals to be found in the forest, he mentioned the wild man of the woods—a myth so generally believed in by the natives all over the northern portion of South America.

Two hours' pulling from Senhor de Leitas's in the boat we hired there—our own being too large and heavy for the portion of the river we had now to traverse—brought us to Ponta da Pedreira, where some highly ferruginous sandstone, the only rock met with, juts out from one bank. The river up to this was wide and deep, and had weeds and water lilies near its edges, but here it narrowed into channels, twisting about amongst little lake-like pools, surrounded by grass and rushes. After a time it again changed, and low trees of true swampy growth flourished on either side. Its water was so remarkably clear, that on looking down into its depths, every pebble on its white sand bottom could be seen with great distinctness, with here and there a school of fish darting about. These were of four kinds, viz. sun-fish, perai, aroapeara, and a large fish with broad black bands encircling its body.

As we advanced the river became narrower and more winding, but being deep, we could not use poles to propel our boat against the strong current. Two of us pulled with the oars, one stood in the bow, to cut off branches that were likely to catch our palm-thatched toldo, another steered, and our *crew* stood with a forked pole to fend off with, when we were swept against either bank amongst the tree branches. This latter personage had provided himself with a flask of rum, portions of which found their way down his throat, from time to time, until at last he began to get unsteady on his pins, and heavy about his upper gear, rendering the task of fending off a dangerous one. It was astonishing to understand how he managed to regain his equilibrium when his forked stick missed a tree branch, against which he attempted to place it; and just as we expected to see him plunge head first overboard, he would right himself with a heavy lurch.

By half-past four that afternoon we had arrived at a point on the river, where it had become so narrowed by tree branches growing across from either side and meeting in the middle, that we could not get our boat any farther. We therefore landed, and clearing away the undergrowth at the foot of some rising ground, camped for the night.

Whilst doing so, a troop of small grey monkeys passed through the tree-tops overhead, one of which was shot, as the Botanist wanted it as a specimen for his collections. He boiled it in a saucepan, and then cut the flesh from the bones to get the skeleton, tasting a bit of the meat as he did so, and declaring it

delicious, trying at the same time to induce us to do the same.

Before it became dark Mr. Cunningham got William to collect enough dry wood to keep the fire going all night, as it was a novel situation for him to be in, who had never camped out before, and he wanted as much light on the scene as possible. We all climbed into our hammocks, which were tied from tree to tree, and soon most of us were fast asleep.

During the night the Chief was awoke by hearing his name called, and the voice of Mr. Cunningham in dread accents say, "Do you hear a tiger coming?" He roused up and listened, only to hear the light quick tread of a paca (labba), as that animal trotted over the dry leaves near the encampment. Informing his questioner what it was that disturbed him, he was relapsing into slumber again, when the same voice exclaimed, "Now! don't you hear a tiger in the tree-tops right overhead?" He listened again, and hearing the rustling of night monkeys in the boughs, advised the Interpreter to go to sleep. Mr. Cunningham replied, that though he courted it ever so much, no slumber would come to his weary eyes, and in spite of himself he was obliged to lie awake, listening for tigers from the forest, and alligators from the river, whose attacks he momentarily expected. He related all his experiences of the night in a most amusing manner next day.

On the following morning we came down stream, by letting the boat drift with the strong current, whilst we being all provided with long forked poles, fended her off from the trees, giving an occasional

assisting push when opportunity offered. As we drifted along we were often swept into the inner side of bends, in spite of our efforts to keep off, and frequently were brought up all standing entangled in a dead tree-top.

In passing under a low leaning branch we unwittingly brushed off the nest of a large black wasp, or "Yessi marabunta," but fortunately going at good speed at the time, got clear away from most of those enraged insects. Some, however, followed us, and we had to defend ourselves from their attacks by beating them off with our hats. As ill-luck would have it, one managed to sting Mr. Cunningham on his nose, giving him great pain, and causing that organ to swell up to twice its original dimensions in a very short time. The effect thus produced upon the expression of his visage was so utterly ridiculous, that his dearest friends would not have recognized him. In spite of his sufferings we were so convulsed with laughter that we had to abandon the management of the boat for a time, and hold our sides whilst tears poured down our cheeks. When his rage against the marabunta had somewhat subsided, he good-naturedly joined in the laugh as we were recovering from our paroxysms of merriment, and solemnly applying a large lily leaf as a restorative to the injured place, sent us all into fits again.

Another leaning tree, under which we passed, caught the thatched toldo, and sweeping it bodily backwards caused it to strike the Botanist, who was aft steering, under the chin and nearly pressed him backwards overboard. Grasping the sides of the boat

he held on, while the toldo was gradually throttling him, but we at once pushed the boat back, and relieved him from his peril.

That night we spent at Senhor de Leitas's, and on the next put up at an empty house above Povoado; near which, whilst obtaining meridian altitudes for latitude, on a sand beach, we heard some deep growling sounds proceed from the forest near by, which, greatly to William's amusement, we mistook for the callings of a tiger. He declared them to be the night cries of the ubiquitous urubus.

The following morning we started on our return to Prainha, stopping at Povoado where our hired man landed and left us. We had now a long way to go to reach the mouth of the Uruara, after which it was necessary to cross the wide stretch of Amazon before we could get back to Prainha, and all this would have to be accomplished by our own unaided exertions. The wind being in our teeth, and the tide setting up river, forced us to have recourse to the oars in order to propel our heavy old boat. From nine o'clock that morning till half-past seven in the evening, we wearily pulled by turns, arriving at a grove of trees a long way beyond Senhor Gomez's fasenda, where we landed and slung our hammocks for the night.

Four o'clock next morning found us at work again, slowly wending our way to the Amazon, a task somewhat lightened by the deliciously cool early morning air, and the contemplation of the beautiful sparkling constellations overhead, amongst which was the brilliant, though somewhat disappointing, Southern Cross. Gaining the turbid Amazon, whose surface

was ruffled by a slight breeze, of which we took advantage by hoisting the sail, we moved slowly across towards our destination. Crossing the chops of the main channel we ran on in the smooth sparkling water beyond, and soon after had the pleasure of beaching and taking a final farewell of our unwieldy craft.

Having finished the exploration of the district, but not the whole of the surveying work in the neighbourhood of Prainha, it was arranged that the Chief, Botanist, and Interpreter, should proceed by the next steamer to Santarem, in order to make that place their head-quarters; while the Engineer should remain to complete his survey; after which he also would proceed to Santarem to rejoin the party.

A division being made of our stores, and small supply of tin plates, cooking utensils, &c., we packed up everything in readiness to depart, whenever the steamer, then nearly due, should arrive.

# CHAPTER VI.

## AT SANTAREM.

Leave Prainha — Ascending the Amazon — Arrive at Santarem — A Stroll through the Town — Unmilitary Proceeding — The Streets — Townspeople — Salutations — Strange Cookery — Food — Vegetable. Boy — Our House — Bathing Places — The 'Natal' — The Band — A Fashionable Marriage — Signs of Rainy Season — One of our Portuguese attacked with Fever.

AT an early hour on the morning of December 20th, the steamer 'Belem,' commanded by our friend Captain Talisman, called at Prainha, and soon after we and our baggage were safely stowed on board. Three Portuguese labourers had been sent up to us in her from Pará, to act as boat-hands or axe-men in cutting paths through the forest. One of these was left with the Engineer, and the other two taken on with the rest of the party.

Just as the first faint glimmer of day appeared, and a reddish tinge became visible in the sky to the eastward, the 'Belem' steamed away from her anchorage, and we were off once more bound westward-ho! She touched in at Monte Alegré, and from her deck we recognized many old acquaintances and landmarks. There was the "Rock Scorpion," various members of Senhor Onety's family, some shopkeepers of the place, old Brasfort, the noisy billy-goat, and the cock that always would come of a morning and crow at the top

of his voice on our doorstep. There was our house, the one solitary cocoa-nut tree, and the sand glistening in the glaring sun. It was with real pleasure we returned the cordial greeting of Senhor Onety and his son, who had come on board.

After taking in a supply of firewood, as well as ten live cattle, and having landed some merchandise, the 'Belem' got under-weigh again. Steaming a short distance down the Gurupatuba, we turned off sharply to the right in a channel, and through it into the Amazon, here of great width, being unobstructed by islands.

Turning up stream, close to the low grassy shore on the north side, our ship had a strong current to contend with, and a short following sea in her favour. The crests of the mud-coloured waves curled into blossoms of foam as they drove before the strong north-east breeze. Hardly a cloud floated above to relieve the intense blue colour of the sky, or lessen the distressing glare produced by the reflection of the sun's rays from the surface of the water.

The bank near which we were steaming was generally wooded to the water's edge, but in places low mud tracts, clothed with a coarse kind of grass, called *capinga*, intervened. On the far side of the river, the view was bounded by a low even-topped line of forest edge, darkly indistinct in the distance. During the afternoon, this changed as we passed the Barreiras of Monte Alegré on the south side of the river, where the line of trees rose, as it were, quickly up, and crested a long range of reddish and snow-white sand cliffs, which presented a high perpendi-

cular face to the river. Beyond to the westward they descended to the level of the water again, where the high land fell back, and could be traced stretching far on to the south-west.

Just after dark, we approached the mouth of the Tapajos river, and soon after saw the lights of the city of Santarem. As we steamed up to the anchorage abreast of the town, we were agreeably surprised to perceive such signs of civilized life as a row of oil-lamps lighting the front street, and a three-storied and some two-storied houses.

Many boats, containing all classes of inhabitants, soon visited the ship, and some of the passengers landed. A gentleman, acting for the agent of the company, came on board to meet us, and by him we were introduced to an American, a Doctor S——. After some conversation, the latter gentleman offered to rent us a part of his house—one good-sized room, with a brick floor—to which we thankfully agreed, and by 11.30 P.M. that night were installed therein.

The following day being Sunday, we all started for a stroll over the town, after partaking of our 6.30 A.M. meal of coffee and biscuit. Our house being situated in a street at right angles to the river in the eastern end of the town, a short walk of some fifty yards, leading up a low hill, took us clear of all buildings, and an equal number more brought us to the ruins of a fort. From it we obtained a good view of the town, looking down upon its red-tiled houses and deserted-looking, grassy streets; and also of the great lake-like expanse of the Tapajos river to the westward. In the opposite direction was the usual characteristic view of

river, bounded by the distant line of continuous forest. There was, however, a new and striking feature in the scene, produced by the different colours of the waters of the Amazon and its tributary the Tapajos which here met; the dark, slow flowing water of the latter impinging on the swift rolling muddy current of the former in an almost even line.

Descending to the wide and extensive white sand beach which spreads away eastward, we turned to the left round the bluff's end, and re-entered the town by its main street, which runs parallel to the river. In this we passed the house of the Baron of Santarem, a large three-storied dwelling; then a lot of low-built houses with shops; and, farther on, one or two fine two-storied buildings. Beyond, we came into a grass-grown space, in front of the cathedral, open down to the water's edge, in which was situated a huge old wooden cross, and a row of Monguba trees rendered striking by their green trunks and carmine-coloured seed cases.

The cathedral is a large imposing edifice having a wide front stuccoed and whitewashed, but stained and cracked by age. It originally possessed two dome-topped towers flanking the front on either side, but as they became unsafe their upper portions were removed. Mass was being held at the time of our visit, and, through the open doors, lights could be seen twinkling far back on the altar. A room in its west tower, on a level with the balcony, which ran along the whole façade, contained a huge cracked bell, which was rattled away upon at stated intervals. The chief effect produced by these ear-harassing sounds was to

induce some boys to rush from the church, discharge a volley of rockets in the air, and then retire. A knot of men, dressed in black cloth suits, loafed about the door, and now and then a person or two dropped in to the service.

Farther on was situated the Indian portion of the town, characterized by its palm-thatched structures.

We now strolled up a street leading back from the river, and crossed two wide thoroughfares at right angles to our course, then turned to the left along the back street of the place, where houses on one side were faced by scrubby bush on the other. About half-way along this we caught a glimpse of the extensive cemetery.

We had by this time gained a good insight into the condition and appearance of the town, and as the sun was momentarily intensifying his increments of heat, we felt compelled to retire to the shelter of our temporary quarters. In doing so we passed the barracks where the soldiers of the National Guard, who do duty as police, are stationed. There we witnessed a distinct outrage upon all time-honoured and well-established military customs, perpetrated by an officer, who, drilling an armed detachment, was arrayed in a full suit of black cloth clothes and a tall black "tile," while he gave the word of command from beneath the shade of a voluminous umbrella!

At the corner of the barracks was an open space, in which were a number of large cannons mounted on naval gun-carriages, their muzzles all pointing in different directions from a common centre, and, being slightly elevated, conveyed the impression to one's

mind that they had all just finished an exciting conversation, and were about to walk off in different directions.

Sitting cooling off in our room, with all doors and door-like windows thrown open to allow of the free advent of any breeze that might blow, we were astonished to hear the sounds of hammering proceeding from an unfinished house near by; and looking out saw some carpenters busily engaged upon it, although the day was Sunday. Doctor S——, in answer to our inquiries, stated that the men there employed were slaves, who not being obliged by law to work for their masters on Sundays, are consequently able to hire themselves out to anyone who will employ them on that day. A watchmaker living over the way, who, however, was not a slave, was at the time working busily at his trade. On a week day shortly after he held a festa, or religious ceremony, in his shop, which was dressed up with flowers and dolls for the occasion. People came in—women and children chiefly—and sang and prayed there, while his clocks throughout the whole service ticked and struck the hours merrily.

We observed during our walk that the houses of the town are neatly built, with fronts plastered and whitewashed; while the doors, door-jambs, sills and window casings, are painted of various colours, such as red, blue, green, and yellow. The window shutters are usually green, and some windows are provided with small swinging jalousies, which can be shoved out in a slanting direction to enable the inmates to glance up and down the street. One or two houses

of superior build have their fronts ornamented with glazed tiles on which are patterns in blue. The streets, which are clean and smooth, have short grass upon them; but they are badly formed, no attempt having been made to raise their centres, or furnish them with either pavement or gutters. In wet weather the whole of the roadway, therefore, becomes wet and sodden. A few horses, some sheep and goats, are seen here and there browsing in the thoroughfares. There is a great want of shade in the town, for with the exception of a short row of almond trees in one street, and a few cocoa-nut palms in the back yards, there are no trees to furnish it.

The people one chiefly sees in the town are black, coloured, and Indian slaves, whose sole object in life seems to be to carry water in large earthenware jars, from the river to the respective houses to which they belong. Some neatly and simply dressed female slaves carry about wooden trays containing fruits, vegetables or sweetmeats for sale, and knots of them may often be seen at street corners, or seated on door-steps, gossiping, just as in the West Indies; but, unlike towns in that part of the world, Santarem has no market, with its attendant crowd of talkative, laughing, happy blacks. Here all have a quiet subdued look, moving noiselessly about; and even the immemorial street boy is seldom heard to whistle.

The Santarem ladies spend the greater part of each afternoon at the window, or peeping through the jalousies of their houses at whatever is to be seen. They always greet the passers by, whether stranger or friend, with the salutation of "Bom dias" (good

day), or "Boa tarde" (good evening), as the case may be—a curious but pleasant custom. The former greeting is used from the hour of rising until mid-day, and the latter from mid-day until the hour of retiring. It is very difficult for a stranger to recollect this fine distinction; for instance, it will seem unnatural to him to say "good evening" when the sun is shining vertically upon his head, and he is sure to be greatly laughed at should he unwittingly substitute the wrong term.

One seldom sees the ladies walking out except in the early morning or evening, when on their way to church; at which times they usually go in small gangs, accompanied by their female slaves, who walk close behind them. Their dress is plain and simple, and they never wear bonnets, hats, or veils.

The first difficulties we experienced about our new quarters were the absence of a cooking-place, and the want of a table. The latter was supplied by the watchmaker across the street, who kindly gave us to understand that we must look upon the table as a gratuitous loan. Our landlord—Doctor S——, relieved our anxieties on the former score, by engaging an old black woman who lived near by, to cook our meals when taken to her by our servant. Meat having been procured at the butcher's for breakfast, it was sent to her with some rice and potatoes; these she all boiled together in an earthenware pot, which, with its contents, she sent to us, just as she took it from the fire. Though an uninviting looking mass it was not badly flavoured, and served its purpose. After some friendly instructions from our servant she cooked things more to our taste.

Breakfast and dinner were exactly similar in composition, and, thanks to the food-producing qualities of the place, we had only once or twice to resort to preserved meats during our stay in the city. That was when our servant, going to the butcher's at too late an hour in the morning, found that every scrap of meat had been sold. The price was very reasonable, a pound costing only fourpence halfpenny; but then it had no fat about it, and was usually tough. Well-baked bread was to be got in any quantity, at all hours of the day; and vegetables of various kinds, such as tomatoes, pumpkins, chochos, cabbages, &c., could be bought from vendors at street corners.

After having procured our vegetables from this latter mentioned source for some time, we became the customers of a remarkably sharp little Portuguese boy, who introduced himself, and his wares, to our notice in a most singular manner. Having been annoyed two or three evenings in succession by small stones falling on the roof of our house, we concluded that they had been thrown with malicious intent, and were on the watch to find out the thrower. One of these missiles having come down with a bang one evening after dark, we rushed out into the street to look for the culprit, and there encountered this little Portuguese boy, who exclaimed in one breath, "I can tell you the name of the boy that threw the stone—do-you-want-to-buy-any-vegetables?—I can supply you every morning." We promised to deal with him, and he then took us to the house of the boy's father, where he pointed out the offender. On threatening to place the matter in the hands of the

police, the father seized his son by the ear in a deadly grasp, and promised to punish him well, if we would let the matter drop; which we did. Upon the next, and succeeding mornings at daybreak, the vegetable boy was in our house with his tray, waiting to effect a sale at the side of our hammocks, until we drove him off with threats of vengeance.

Upon the second evening after our arrival we were visited by an English gentleman, a Mr. P——, who had lately settled out here; and on the following day made the acquaintance of his brother-in-law, a Mr. W——. It was quite refreshing to meet and converse with gentlemen from the old country away out in these wilds. Mr. P—— kindly invited us to come and see him at his place, some five miles south of the town, at the edge of the elevated land. Some Americans, who came from the Southern States after the war, have plantations of sugar-cane out in the same part of the country.

Doctor S—— also has a saw-mill in course of construction near the same locality, which he set out for on horseback one evening soon after our arrival. Slung to his saddle was a large auger and a lamp. When, on bidding us adieu, he explained, in answer to our questionings, that the lamp was to guide him on his way through the bush, Mr. Cunningham facetiously inquired whether the auger was to defend him from the attacks of tigers.

Calling upon the gentleman, who at the time acted as agent for the Company, to whom we had a letter of introduction, we found him lying on a sort of bed sofa, his head bound up in a white handkerchief, and

his neck in a red-silk one. He complained of rheumatism in his side, and looked ill; but during the conversation we had, he rose equal to the occasion, and made a long harangue about the grandeur, beauty, glory, and value of the Amazon. In this he was ably supported by two of his friends, who had also dropped in to visit him.

He rented us a house in the same street as his own, just about the centre of the town, into which we moved on the morning of Christmas-day. In it were three halls, a back verandah, and three large rooms, besides smaller ones. It was as usual built with thick walls, plastered inside and out, and covered in by a rickety tiled roof. Behind it came a large yard grown over with rank weeds and shrubs, amongst which were scattered broken bricks, black bottles, and bones.

On the whole we were very comfortable in it, having plenty of room to move about, stow our things and collections, and sling our hammocks. These comforts would have been as nothing, were it not that we were never troubled by mosquitoes during our stay. Santarem is happy above all other Amazonian towns in having no mosquitoes, a blessing that must be experienced to be fully appreciated; for it is something to be in a place in that country, where one is allowed to rest in peace, without being harassed by blood-sucking winged insects.

Having letters of introduction to the Baron of Santarem, and to a Doctor A——, we called to present them. We were received most cordially by the Baron, who gave us a general invitation to come and

see him at any time. Upon our saying how delighted we were with Santarem and the beauties of its neighbourhood, he remarked that though well endowed by nature it was far behindhand in everything, owing to the wants of the population being so few that they had no inducement to work and better themselves or their country. In Santarem, as in the towns of most tropical countries, the hall doors stand wide open, but being unprovided with either knockers or bells, the caller has to stand in the doorway and announce his arrival by clapping his hands. The youth who answered our summons at Doctor A——'s, informed us that his master was taking his afternoon nap; and as he did not offer to go and awake him, we handed in our cards and retired gracefully.

In going to the public bathing place, one quarter of a mile eastward of the town to take our evening bath, we usually crossed a large open level space facing the beach, wherein was situated a large pretentious structure, having columns in front; the object for which it was used puzzling us much at first. We learned that it was called the Camara Municipal, one end being occupied by a court-room and offices, and the other by the prison.

Lacking the free and easy disposition of the Monte Alegréns in this matter, the authorities here would not allow men to bathe along the wide stretch of sand beach, yet they permitted people to erect frail, plaited, palm-leaf bathing structures in the water directly in front of the town. The washerwomen, however, seemed to have it all their own way, and in the forenoons bathed and washed clothes to their heart's

content, close to the fort. A curious sight was then presented, by the number and varied tinted articles of clothing hung up to dry, on poles and ropes, where they looked like flags fluttering in the breeze.

On the two evenings preceding Christmas, whilst enjoying our bath in the clear Tapajos water, small montarias passed us in dozens running up to Santarem. Each contained a native and his family, together with many of their household gods. They were on their way to join in the "festa" of "Natal" held in the cathedral. Most of them were Tapuyus from Itúkie and Barrieras, who, on arriving at their destination, camped under sails and toldos close to their boats on Santarem beach. There they took up their quarters for a few days and paraded the town in numbers, giving the streets a more lively appearance.

About this time a band marched through the streets by night, serenading the inhabitants, which reminded us a little of the waits at home. Amongst the vocal performers attached to it were a lot of boys, whom we recognized as those who officiated as choristers in the cathedral. The same band—minus the choristers—gave performances in a small dancing saloon in the back street of the town, nearly every afternoon and evening, which were attended by the lower class of inhabitants, the entrance fee being fixed at the high figure of tenpence per head.

During our stay at Santarem we witnessed a fashionable marriage which perhaps merits description. Early one morning, long before daylight, we were awoke by the discharge of fireworks from a yard adjoining our own, and wondered what could be the

reason of this unusual proceeding. On inquiring, it appeared that the gentleman in a neighbouring house was to be married on that day, and was in this way heralding the arrival of the wedding morn. The ceremony itself—unlike similar events in England—did not take place until twilight. There being no carriages in Santarem, it was necessary for the bridal parties to walk from their respective residences to the church. The bride was well dressed in a white gauzy material, trimmed with watered silk of the faintest steely tinge, a long veil, and a wreath of orange blossoms, while the bridesmaids were dressed with equal taste. As soon as her procession arrived at the church, which, strange to say, was before that of the bridegroom, she and her bridesmaids knelt on the floor engaged in prayer, until the victim himself arrived with his friends, all clad in swallow-tail coats, white waistcoats, and gloves.

The whole party now advanced together to the altar, ascended the spacious steps which had been gorgeously carpeted for the occasion, and arranged themselves before the priest, who was in his grandest robes. The words of the service could not be heard, as the priest spoke only in a whisper; but as a spectacle the thing was very effective. Only a portion of the church near the altar had been lighted up, and all the spectators, as well as the persons engaged in the ceremony, pressed forward into this illuminated space. Little naked and half-clothed children, negro women with black babies sitting astride their hips, and other picturesque figures, pressed boldly up the steps and took up a position quite close to the bridal party, to

which they formed a striking and effective contrast. When the ceremony was over, the newly married couple with their friends and relatives walked in procession along the grassy streets to the house of the bridegroom, from which sounds of festivities were heard to issue all night.

Before we left Santarem many warnings of the approach of the rainy season were given, in the shape of heavy afternoon showers and one or two wholly wet days. Winged termites began to quit their nests in the campo near the town, and fly about in great numbers, coming into the houses, and crawling over everything as they divested themselves of their wings. After unhooking these appendages, an act which always reminded us of the process of throwing off a coat, they became quiescent for a time between the pages of books, under the edges of the table, and in cracks of the wall; and then after a day or two entirely disappeared. Still we did not experience any constant heavy rains at Santarem—those were reserved for us at Obidos.

One of our Portuguese men, named Martinho, was attacked with fever during the last week of our stay, and became so alarmingly ill that Doctor S—— was called in, and pronounced it a case of "a typhoid form of intermittent fever." We applied to the agent for advice, and he communicated with the Government medical officer, Doctor A——, whose duty it was to attend to Portuguese and other immigrants: Dr. A——'s treatment, judging from its effect upon the poor man, chiefly consisted in the administration of some strong emetic, which seemed at the time to

aggravate the symptoms. Before we left we hired a Portuguese nurse who lived opposite—the mother, in fact, of our little vegetable boy—to attend to him; got leave to retain a room in our house for him; and then made him over to the tender mercies of the Doctor. Seventeen days afterwards he joined us at Obidos in a very weak and emaciated condition, and not entirely free from slight attacks of fever. Finding he did not regain his health he returned to Pará, and as we subsequently learnt left that place for Lisbon.

The prospects before us regarding our sanitary status were not cheering at the time, for a fever, called the "Black fever," had been very prevalent, and still remained in some places on the river; while the small-pox was carrying off daily a few victims in Manaos, the capital of the province of Amazonas, a city which in the course of a month or two we should have to visit.

## CHAPTER VII.

### EXCURSIONS FROM SANTAREM.

The 'Helvetica'—A *Fiasco*—Old Slave at Santa Anna—Vanquish Dogs—The Barreiras—Gigantic Toad—Bacaba Drink—Accidents on last Night of the Year—Freaks of little Indian Slave—Drunken old Nigger—Sailing on the Tapajos—Alter do Chão—Eccentric Individual—A Native Ball—Fire-ants—Aramanahy—Sauba Struggle—Dangers in a Tropical Storm—Adventure with a Labba—View from Alter do Chão Hill—The Judge—History of American Settlement—From Santarem to Obidos.

NOT having been able to obtain the means of visiting the Barreiras from Monte Alegré, we had now to endeavour to reach that place by some means or another. Having been informed by Dr. S——, whom we consulted in the matter, of the whereabouts of a man owning a steam launch, we visited and concluded a bargain with him for its hire for the proposed trip. This man—a Swiss named Pedro—was a mechanical engineer, who had himself constructed the engines of his craft, to which he had given the name of the 'Helvetica.' It could have been no easy matter in a place like Santarem, with the slender means at hand, to perform such a work as the construction of a steam engine; and it redounded much to his credit that he was able to overcome the difficulties incident to this task.

We had to wait patiently until the 'Helvetica'

underwent some necessary repairs, and finally made a start on the day after Christmas. Upon our arrival on board, we found the steam gauge promisingly standing at 40 lbs. pressure, while steam fizzed off from the safety-valve, and the furnace roared merrily as if promising a further supply. Although the launch was a clumsily built wooden one, of some 40 feet in length, covered with a flat awning supported on iron rods, yet it looked as if it could steam along at a reasonable rate. Little did we think that we were to be undeceived in that respect.

A crowd lined the beach to witness our departure, and thus kill some of that time that hung so heavily on their hands.

Pedro acted in the capacity of engineer, while our two Portuguese men, José and Antonio, performed the duties of sailor and fireman. After nearly driving us mad by unnecessarily blowing the steam whistle, Pedro started his engine, the screw revolved rapidly, and we were off at full speed. Now we felt at last that we had a means of getting rapidly to our destination, and congratulated each other accordingly. How much more comfortable, we all agreed, it was than the Frenchman's montaria of the Prainha days. But, alas! we had not gone many boat's lengths before a violent struggle occurred in the furnace, steam blew out of its door, followed by water, and then down went the steam gauge to 8 lbs. Pedro immediately stopped the engine, which had hardly a kick left in it, and there, almost before that expectant crowd, we floated like a log on the river.

If they enjoyed this *fiasco*, or looked laughingly

upon our sudden collapse, we can here assure them that it was a most solemn joke to us.

After Pedro had accounted to the Interpreter, in some way, for the late disturbance, and said that it would not occur again, we anchored most ignominiously off the fort for half an hour, until the fire burnt up and generated enough steam to take us on.

Progressing at the rate of one quarter of a mile per hour, we got a little way beyond our bathing place, when we came to a stop, and took on board a pile of wood that had been cut for us. This wood being drier than that which we had previously used, it was supposed that we could get up more steam, and consequently go faster, but our rate of travelling did not improve much.

We entered the Itukie channel which runs between Itukie island and the southern mainland of the Amazon, and steamed slowly down it. Sheltered from the breeze by the trees lining the sides of the narrow channel, and subjected to the influence of the launch's furnace, we felt the heat exceedingly; and were not sorry, when Pedro stopped at a place where large trees had been cut down in order to procure firewood, to go on shore, and get some shelter beneath the forest's edge.

At dusk that evening, we reached a place where a fasenda, called Santa Anna, is situated on high ground, and dropped anchor for the night, as Pedro did not know what intricacies of navigation there might be to contend with farther on in the darkness.

A black man boarding us, we returned with him to the shore, and there were furnished by him with a

room in Santa Anna house, the sole occupants of which were numerous bats and a bench. This negro, who has the entire charge of the place for its non-resident proprietor—a dweller in Santarem—was very amusing and comical. He gave us a slight sketch of his life, the gist of which was, that he had originally been a slave in Pará, had run away, and gone up the Amazon to Tabatinga—a distance of 2000 miles. Returning after a time to Pará, he gave himself up, and was sold to the owner of Santa Anna who placed him here, where he had remained for fourteen years. Five of his fellow slaves have run away, and settled far up a neighbouring river, called the Curua; but, as he did not like a wild bush life, he had not followed their example.

Next day, while our men were busily engaged cutting more wood, we had an opportunity of looking over the place. It had some cleared grounds around it, and a few cattle, but on the whole was in a dilapidated and neglected condition. The wreck of an old schooner, lying half under water off the shore, did not enliven its general decayed look. The old slave showed us a room in the house, which he called the chapel of St. Benedicto; while the large wooden cross in front of it had, he said, been "erected to the angels," and shadowed a small burial-ground for the reception of children.

We eventually got wood, and continued our journey at an exceedingly slow rate, yet much faster than we could have gone in a montaria. Clearing the lower end of the Itukie, we entered the Amazon, and went on past the Curua river mouth to the upper end of

the Barreiras, where the low land on our left gave way to picturesque cliffs. Very pleasant it was as we passed close along to gaze up at these, with their varied coloured faces of different shades of red, white, and grey; sloping and patched with vegetation in some places, and steep or perpendicular in others.

In two hours after first reaching them, we came to their eastern termination, and dropped anchor close in shore off a small settlement, where a Senhor Antonio Manoel, to whom we had a letter from the Santarem Agent, resided. He kindly offered us the shelter of his house; but, as he was himself ill and as yellow as a guinea with jaundice, his son had just died of fever, and his house was close shut up and stuffy, we declined with thanks, and hung our hammocks for the night under an old open shanty near by. The ground beneath this was strewn with poles, and a heap of palm thatch occupied a portion of it, giving the place an air of a home for insects, and fearfully suggestive of scorpions, snakes, and spiders.

Showers of rain during the night wetted the forest, and delayed our exploring through it on the following morning; but the interval was occupied by another visit to the owner of the place, who gave us much information about the surrounding district. Two old ladies, his wife and sister, lived with him, and had as an attendant a sprightly young woman with a fairy-like face and form.

The place had evidently been settled for many years, for mango and other fruit trees grew about it. An attempt at a flower garden near the house had

been pre-eminently successful, and red and white roses bloomed in it in profusion.

Before leaving the place to go inland we were warned that we should meet a settlement where there were some savage dogs, the owners of which were not at home. Knowing that Amazonian dogs cannot stand a charge from a band of pale-faces, even though those faces be crimsoned and peeled by the sun, we were not only not afraid, but anticipated some fun from the encounter. This was fully realized upon our arrival at the place, when some six or eight dogs and a half-grown puppy advanced to the attack, with deafening barks and snarls. Instead of being brought to a stand-still by this demonstration, we made towards them at a run, keeping well in line, armed with various implements, amongst which was a geological hammer and a cutlass. The nearer we got to them, the less confident became their tone of bark, until as we were within a few feet, it assumed the sound of a semi-howl as they turned and fled in a most panic-stricken condition, and in a sort of each-dog-for-himself style. The puppy, brave as a lion at first, now took refuge beneath an oven, from which it uttered the most heartrending cries, while we dodged round the houses after the demoralized dog army; and never rested until every member of it had disappeared in the depths of the forest, leaving us masters of the deserted village.

Situated, as it was, on the southern slope of the high land, it commanded a view of a great morass reaching far off to the southward. All this was level as a carpet, and of a brownish-green colour from its

clothing of reeds and sedges. The water of a small lake sparkled in the sun in one portion of it; and the whole had a watery look suggestive of malaria-producing qualities.

After another night spent at Senhor Antonio's, we sent our launch on to the upper end of the Barreiras, and explored the face of the cliffs from a boat. Their upper portion was composed of red loam, passing downwards into white sands, which in their turn rested upon grey clays, forming a recent deposit of considerable thickness, which spreads over the whole Amazon valley. One portion which we climbed, by cutting holes in the clay and earth, was found to be 177 feet in height. Two valleys, scooped out of the cliffs, formed low level areas, upon which there were two or three houses and large cultivated patches.

Entering the Caparanga, a small river a short distance above the Barreiras, after regaining the 'Helvetica,' we steamed slowly up its narrow course for about half a mile, until the grass growing upon either side prevented our launch from forcing her way any farther; and there we anchored. Being close to a house on the mainland we landed, and gaining permission, hung our hammocks in a large clean open shed, where we spent a comfortable night. The 'Helvetica' looked from the landing as if she was high and dry in a meadow, nothing but grass being seen about her.

On the following morning we went inland along forest paths, guided by the son of a coloured man, named de Brito, to whom we had a letter from the Agent, and did not get back to our steamer till late

in the afternoon. On our way we encountered a huge toad, a great brown and drab-coloured, blotched-looking thing, some ten inches long in the back. Thinking it would be a great prize for the Botanist, who seized all the snakes, small frogs, and insects he fell in with for his collections, the Interpreter and the Chief gleefully pointed it out to him, feeling that they deserved great credit for such a valuable find. To our utter astonishment he only poked it in the ribs with a stick, gazed sadly at it, and then left it, instead of grasping it as we fully expected he would have done. In answer to our exclamations of surprise at his strange conduct, he said regretfully, "It is too large to go into any jar of spirits that I have got." "Then," said the Interpreter, "all I can say is you have met your match at last, but it is the first time I have seen you beaten." At this the old toad winked his eyes, raised the fore part of his ponderous frame slowly up till the points of his toes only touched the ground, swayed a little from side to side with his shoulders up to his ears, kicked himself into the air, and came down flop, some three feet on. Another wink of his glittering eyes, two more flops, and he was lost to sight in the undergrowth.

Whilst resting at de Brito's house on our way back, one of his daughters presented each of us with a *cuya* or drinking vessel, made from the calabash. This was very tastefully painted on the inside, with patterns in red, blue, and yellow on a black ground. Everywhere on the Amazon these bowl-shaped vessels are in constant use, and form very frequently the only substitute for cups or tumblers in the houses of the

Tapuyus; while every montaria is furnished with one as a bailer.

In descending the Caparanga next day, we had to get the launch towed down the narrow channel for a short distance by our Portuguese sailors José and Antonio; and were afforded much amusement by their frantic efforts to escape being run down, when Pedro, without any warning, started the engines ahead at full speed. They never paddled with a better will in their lazy lives, as the bow of the 'Helvetica' loomed above and threatened them with instant destruction. When the engine was stopped they came hurriedly and thankfully on board.

As an illustration of the *great* power of the 'Helvetica's' engine, we here record an incident that took place as we were descending the Caparanga. With a full head of steam she was going merrily along, when, without any warning, the engine came suddenly and unaccountably to a full stop. Rushing to learn the cause of the apparent break-down, we discovered that one of the pieces of firewood, quite a small stick, had tumbled into the machinery, and getting caught against the crank of the screw shaft had brought it up all standing.

Steaming down to the first valley in the Barreiras we landed with young de Brito as guide, and went off through the forest southward, until we reached the border of the great morass called Lago Cuçary. In returning, de Brito and his companion climbed tall palm trees, called Bacabas, and cut from them branches of ripe purple berry-like nuts, which they carried out of the forest. Obtaining an earthen basin

at a house on the river's edge, they rubbed the nuts up together in water, thus detaching the thin pulpy covering from the seed, and mixing it intimately with the water, produced a yellowish pea-soupy looking liquid. Sweetened with sugar, this made a cool luscious beverage of rather a too oily richness to be palatable to those tasting it for the first time.

By two o'clock that afternoon we were under-weigh on our return journey to Santarem, and at the mouth of the Caparanga bade adieu to our guide de Brito and his companion Antonio, as fine and intelligent a couple of young fellows as one could meet with in any part of the world, and kind withal.

Now commenced the most memorable portion of this to us most memorable trip—a night journey in a slow-going launch against the strong current of the mighty river. After a still, roasting afternoon, night —cool refreshing night—came down upon us as we made the lower point of Itukie island. There was not a breath of wind, and the sky being overcast made the evening intensely dark. For some unaccountable reason Pedro elected to follow the shore of Itukie island in the main Amazon, where the current ran strong, instead of taking the Itukie channel, where the water did not flow with anything like as great a force. Thus through the livelong night that wound up the remnant of the old year of 1873, and ushered in the beginning of 1874, were we struggling onwards, foot by foot, fighting for every inch of progress towards our goal—the town of Santarem.

In the darkness it was difficult to judge our distance from the bank, to evade the semi-submerged logs, or

to perceive where sand shallows were situated. We agreed to keep watch in case Pedro should fall asleep, and whilst the Chief and Mr. Cunningham were engaged sitting and chatting aft, we were informed by that individual that there was something wrong with the feed-pump. He further said that he should have to stop the engine to examine it. Hardly were the words out of his mouth before the launch, as if in anticipation of his intentions, ran itself hard and fast aground on a sandbank, coming suddenly to a stand. We at once got out the long poles carried for such an emergency, and after a deal of poking and pushing against the bottom, assisted in our endeavours by the reversed action of the screw, succeeded in getting her afloat.

Dropping anchor we made all snug, while Pedro examined his feed-pump, finding a chip of wood propping open its fixed valve, and thus preventing it from drawing up water. How the chip came there puzzled him much, and he could only account for its presence by supposing that it had been in the pipe before it was placed in his launch. After the obstruction had been got out, and the pump screwed together again, orders were given to hoist anchor.

Just at the time when the old year was sighing away its last breath in a gentle wind that moaned over the broad bosom of the Amazon, and regretfully stirred the leaves of the adjacent forest, we fell to work at the anchor's cable, and to the Jamaican nigger tune of "Rosie, walk along," we tried to get it on board. In it came inch by inch up to a certain point, but then refused to come any farther, thereby an-

nouncing plainly that the anchor was hooked on a sunken log.

The new year had thoroughly established itself, and was over an hour old, by the time we had induced the anchor to quit its hold and come quietly up. No little exercise of ingenuity and seamanship had to be employed before this became an accomplished fact; and our ultimate success must be attributed to a manœuvre, called "tripping the anchor," which bore fruit only after having been tried some twenty times. We rewarded ourselves for our strenuous exertions with a cup of coffee each, and then had a snooze of a few hours' duration.

Daylight found us pounding away off a point near the head of Itukie island, where the current was so strong that we thought we should never weather it. After repeated spurts of the engine, and rushings of the launch at the swirling waters, where at times we held our own, but at others were washed ignominiously back, we succeeded in passing the point just as it occurred to us that we were fated to be another "Flying Dutchman."

Beyond the mouth of the Itukie, we landed to cut wood for the launch, for the last and probably hundredth time; and by 2 P.M. that afternoon reached Santarem, where we bundled ashore, glad to get rid of the 'Helvetica,' the very name of which offended our ears as much as the horrid garlic consumed by Pedro —surmounting the smell of bad engine-oil — had offended our noses during the momentous voyage. Hurrying up to our house, we gained its hospitable shelter, and, flinging ourselves into chairs, rested and "cooled out" for a time.

When we left this mansion, we had secured the back door with a sloping pole jammed against the inside, and had locked the front door; now we found the former wide open, showing that "some person or persons unknown," had forcibly effected an entrance during our absence. With what object it was hard to say, for he or they had not touched any of our personal effects; but, on the contrary, had added a contribution to our glassware, in the shape of a broken gin-bottle, which was placed in the centre of the floor of one of the rooms. The culprit we strongly suspected to be an Indian slave-boy, with a horrible squint, belonging to our next door neighbours, who usually played about our back yard or on our front door step, calling in frequently with religious regularity to inquire whether we had any eggs to sell. We could never fathom the meaning of this curious inquiry, for he must have seen that we had no hens, and the only inhabitant of our back yard was a most unfowl-like old tom cat.

Two days after our return, we experienced the pleasure of having our party all together again, as the Engineer, having finished his labours at Prainha, had come on in the steamer 'Arary,' and rejoined us.

Having work to do on the east bank of the Tapajos, at no very great distance from our head-quarters, we decided to make our way to the place by boat; and, through the assistance of the agent, procured a small montaria suitable for the purpose. In a country where no one hurries, it is difficult to prepare to effect a movement from one place to another without the loss of much time. The preparations for this journey to a territory lying between Alter do Chão and Aramanahy

were no exception to the general rule, consequently it was the evening of the 5th of January, four days after our return, that a feeble old nigger, much the worse for drink, came to inform us that the boat was ready, and he was to be our guide. Becoming noisy over his demand for money to buy food—we fear he meant drink—we turned him out of our house, and did not see him again until we were ready to start on the following morning. Then we gave orders to a shopkeeper to supply him with the necessary quantity of provisions to last him for the voyage. When he returned from getting these, he smelt very strongly of rum, and at once said that our boat was too small, therefore we *must* hire a large two-masted one, of some five tons burthen, which was lying at anchor near by. As this boat belonged to the above-mentioned shopkeeper, and had been already offered to us, it was evident that its owner had given the old nigger rum as a bribe to get him to induce us to hire it. As the device of Senhor Shopkeeper was so very transparent, we saw completely through it, and, angrily ordering the nigger on board, put off from the beach.

The strong breeze wafting us on our way raised very respectable waves, which came now and then on board, owing to our boat being too heavily laden. Before we had cleared the upper end of the town it occurred to us that some one of the lot, with his traps, must be put on shore in order to lighten the boat, and that some one must be the old nigger. Running in to the beach we landed him and his provisions, and again resumed our voyage, feeling that we could find our way just as well without a guide.

Sailing westward on the clear olive-green waters of the Tapajos, not far from its southern shore, near low cliffs fringed here and there by long sand spits, the tree-clothed land on our right receded as we advanced, so that it at last dwindled down in the distance to minute isolated clumps of forest, and vanished finally in a flickering mirage. With the wide vista of water horizon in front we could almost imagine ourselves approaching some inland sea, instead of being as we were, only in the entrance of a tributary of the Amazon. As our craft danced along on the crests of the waves, which were quite as heavy as she could stand, and scudded before a fresh breeze under the bluest of all blue skies, we enjoyed the panoramic view of the pleasing coast from Santarem to Point Cururu.

We had become so dreadfully tired of the dead level tracts of the Amazonian valley, smothered as they were with a sort of blanket of vegetation, that when campo country was met with we always hailed its advent with delight, and never tired of admiring its open cheerful appearance, thus making the most of it. No matter how grand the idea may be of traversing a country where nature still holds complete sway, one at last wearies of it, and longs for signs of human life, such as fields, pastures, and houses. Thus the rolling campo with its scattered groves, when seen in the distance, takes the form of cultivated country, and is welcomed accordingly. Even sand beaches, where one may shake himself clear of forest leaves, and stroll over smooth uninterrupted areas, is a great boon. Consequently we admired in turn, as we passed along, the great sand spits of Maria Josepha, Maria

Thereza, and a number of others, with deep bays between; the red and white cliffs sometimes capped with groves, at others backed by rolling grass lands; and the singular bare red and white roof-shaped hill of Alter do Chão.

By 4.30 P.M. we had rounded Cururu point, and entirely changing our course to due south could no longer take advantage of the breeze. We, therefore, paddled along under the lee of the land heading up for the little village of Alter do Chão.

Cururu point is formed by a knee of land on the inner or eastern side of the Tapajos, which there changes its course from due south to due east. From this point looking up river a water horizon meets the view, while glancing across westward the line of the opposite coast is only just distinguishable. As we wended our way along we obtained a fine view of Alter do Chão hill, and soon after entered the little land-locked port of the village bearing the same name. Making our way from the landing to the most pretentious house in the place, one little less thatchy looking than its neighbours, we made the acquaintance of its owner, who, upon our stating that we were travellers in want of a place to sling our hammocks for the night, kindly apportioned us a large empty airy room, in which his servant placed a table and a few chairs.

It was quite 9 P.M. before we had our dinner, owing to the lateness of the hour at which we landed. Whilst partaking of it a short man with a sort of deformed arm came to visit us, who, being rather inquisitive at first, was voted a bore; but he soon

improved upon acquaintance, and turned out rather a jolly personage than otherwise.

He was very talkative, giving an outline of his history, to the effect that at one time he had lots of money, but while travelling in Europe and America had squandered it all; and wound up by saying, "I now find myself in my native province with only enough money to buy myself melons; but until I have done some good to my fellow-creatures here I will not return to the bosom of my family at Pará." At the time he was trying to make a living by selling merchandise, and teaching a school. He blandly informed us that "Rio de Janeiro is a second small Paris, but the Amazonian part of Brazil is very far behind time and miserable." When in the course of conversation watchmakers were mentioned, he said, "The watchmakers of Pará are only parasites of the Watchmakers' Company, and should rather be termed watch-breakers."

Having amused us during our meal, he proposed at its termination to conduct us to a ball that was then going on in the village, to which invitation we readily assented. Accompanying him to one of the detached houses forming the front row of the village, where the festive gathering was being held, we stood for a time at its door and witnessed a few of the dances.

The ball-room, occupying the whole floor of the house, which was of smoothly beaten-down clay, was cool and airy, from the open nature of its palm-thatched sides, through the interstices of which numerous native on-lookers gazed. The lady guests were neatly dressed in coloured cottons, ornamented with

ribbons, while the gentlemen wore black cut-away coats and white trowsers. We arrived in time to witness a quadrille, danced with much solemnity and precision, by all but one man, who, skipping about in an extraordinary style, gave us the impression that his knees were furnished with wire springs. After a waltz they danced their great national dance, the Fandanga. They did it thus: a lady and gentleman faced each other, and then, dancing short steps, advanced and retired, swayed sideways without hardly moving the feet for a time; then advanced and retired again, keeping all the while their arms raised above their heads, with bent elbows, while they snapped their fingers to the tune. The Fandanga is worth looking at when danced with spirit, but not as they crawled through it. Now and then a lady would come up and cut out the one dancing, as in a jig, and a gentleman would act in a similar manner; thus keeping it going for a lengthened period, until the band, consisting of a flute and two guitars, became temporarily exhausted.

When the ladies imbibed coffee during the intervals between dances, the gentlemen tossed off drams of cachaça; and when the latter smoked cigarettes, the former—must we tell it—took whiffs from long pipes. Every now and then two men came hastily into the street in front of the house, discharged a rocket and a gun into the air, and as quickly withdrew again.

After a short stay at the ball-room door, we returned to our temporary quarters. During the night the reports of the firearms repeatedly awoke us; and once we were all aroused, and somewhat startled, by a

pitched battle of village dogs under our hammocks. These animals had made their way through openings between the upright posts which formed the walls of our room, by pushing aside the dry palm leaves which hung loosely in them.

A Senhor de Paz, head man of the place, to whom we had a letter from the agent, furnished us with a guide next morning; and, taking advantage of a strong fair breeze, we sailed on our way, arriving in due time at Jurucuie bay, not many miles on, where we landed. During the afternoon we were engaged in cutting our way inland through the thick forest; and, returning to our boat at night, we camped on the white sand beach, under two canvas awnings which we had brought with us for that purpose. To our surprise we were attacked by mosquitoes, which somewhat astonished us, because we had been told that there were no mosquitoes on dark-water rivers. Part of the early portion of the night was occupied in taking observations of north and south stars for latitude, after which we slept the sleep of the just.

The shore line southward, consisting of cliffs and wooded slopes, the latter often faced by broad white sand beaches, was explored on the following day, as far as the little settlement of Samauma, where we took up our quarters in an untenanted open-sided house for the night. Here, though protected from the elements should storms arise, we were subjected to the annoying and painful attacks of a small red ant, called the "Formiga do Fogo," or fire-ant. They made no attempt to follow and attack us in our hammocks, but only seemed to nip when in their wander-

ings they ran up our legs. The provision box soon swarmed with them, their great centres of attraction being the lard used for cooking, or any other greasy substance. A hairy brute of a poisonous tarantula spider, which came out of the thatch to look at us, was fortunately despatched. It was of great size, and differed from the generality of its kind in having bands of yellow-coloured hair around its legs.

On the following day, when we arrived at the little village of Aramanahy, consisting only of some half-dozen thatched houses, built upon a sand beach, we got permission to occupy an empty dwelling; and arranged with one of the inhabitants to guide us inland on the morrow.

Aramanahy is prettily situated at the mouth of a wide gully, whose high sloping sides are clothed with trees, and whose front opens on a wide sandy bay. Riding at anchor in the offing was a smart trading schooner of some twenty tons burthen, which boasted of topsail yards, and had much useless head-gear and rigging. To the different coloured paints applied to its sides and deck cabins did it owe its smart appearance, for its hull, having no lines, and being scow-like at both ends, was clumsily formed enough. Its deck was so built over with high cabins, curved coverings, and hurricane decks, that its hull was sunk deep in the water. This style of craft, in various sizes, is met with on all parts of the Lower Amazon and its tributaries. They are, in fact, floating shops, commanded by the trader who owns them and their contents. He goes from place to place where shops do not abound, and barters his goods for country produce, such as

farinha, salt pirarucu, &c. The only other "shipping in port," besides small montarias, was a large scow, used for carrying cattle.

A beautiful spreading tree near the front of our house produced a deliciously cool shade, under which, whilst resting for a time, we were greatly amused by a singular struggle going on between a soldier-saüba ant and his working fellows, at the mouth of their underground nest. Some eight or ten of the workers clung on to his legs and antennæ, and tried to drag him back as he endeavoured to come out of the hole. Though furnished with huge mandibles, he never lost his temper or tried to bite them, and it was evident, though they detained him by force, they never nipped him hard. During the struggle they allowed two or three other soldiers to saunter out past them, and go roaming by themselves. It appeared as if this particular individual had behaved badly, was under arrest, and was now being prevented from breaking barracks. The end of the struggle was not witnessed by us, and it will never be known who gained the day, but, from all appearances, it went against the soldier. Interesting as these saübas are, they are the curse of the country, from the rapid and heartless manner in which they strip the leaves off all cultivated plants, and thus destroy them. In a single night a large party of them will devastate a small plantation of mandioca.

Early in the morning we commenced our walk from the river inland, accompanied by our guide José de Castro (a pure Tapuyu), and his three companions. One was a light-coloured young man in whom we recognized the flute player at Alter do Chão ball; and

the other two were curly-haired, bearded, Spanish-looking men. Traversing the gully close to a swamp for about a quarter of a mile, we ascended a steep slope to the top of a level plateau 350 feet above the river, from some old clearings on which we obtained a good view of the Tapajos. Crossing the old fields, the soil of which was black and filled with pieces of broken pottery, showing that it had in bygone days been the site of an Indian village, we went in an easterly direction through the forest; and having a fairly well beaten path to follow were enabled to go many miles back.

In no part of our wanderings did we meet with such a splendid growth of lofty and magnificent trees, many of which must have been little less than 200 feet in height, with trunks of four feet in diameter. This plateau forms a fine region, which is a perfect paradise of vegetation, and richly endowed by nature as a spot *par excellencé* for tropical agriculture. In one respect only is it lacking; it has no streams on its almost level surface, and the only water we met with was in a rain pool where a herd of peccaries came to wallow.

Having completed our investigations of this fertile spot, we made our way back to Aramanahy, and taking to our boat again sailed up river. On the way we experienced a heavy tropical shower, falling from an intensely black mass of clouds, which, after it had passed us, wended its way up river—the rain descending in broad, black, ever changing-bands. Meeting with a breeze—plainly discernible to us by its ripple on the water—it became shunted, and took a diagonal course to the other side of the river. There it covered

the sky, obscuring the afternoon sun, whose rays shining upon the broad black rain-bands lit up their edges like lines of silver, and produced a very beautiful effect.

Near sundown we began to cast about for a roosting place, and perceiving a banaboo on one of the curious sand bars which are offshoots of the broad sand beaches, we landed to take possession thereof, but finding it swarming with jiggers we fled to our boat again. Not far on we found a landing place on sands, with two more jiggery banaboos, which we tore down, and with the eight posts thereof planted in a fresh place, manufactured our sleeping apartments.

Before starting next morning we ascertained that there were two empty houses not 200 yards inland, in which we might have lodged for the night, but which had been hidden from our view on the previous evening by trees. Another half day sailing along the coast brought us to the termination of our voyage in the bay of Jaguarary; and from that we turned about upon our return journey with the wind against us, but with the very slight current in our favour.

From the point at the northern end of the bay ran a long sand spit for at least two miles across the bay's entrance, parts of which were just below the surface of the water. Through one of these gaps we had paddled our way, and were trying to beat to windward, when a heavy rain squall came up river, preceded by strong gusts of wind, which forced us to lower the sail and pull for the land. Down came the rain in enormous drops, and the breeze blew even stronger than before, just as we were within twenty yards of the

beach. Then it was that our two Portuguese men jeopardized the lives of all in the boat, by putting down their paddles, and taking the sail poles to push the boat along, thinking that the water was shallow. The poles did not reach the bottom, so that the unpropelled boat drifted rapidly before the gale, right for a part of the sand spit over which the waves beat with fury enough to overwhelm her, should she unfortunately drift upon it. Our men, urged by us to strenuous efforts, worked with the only two paddles the boat possessed for about a quarter of an hour, during which our fate hung upon a thread, and at last succeeded in bringing the boat under the lee of the point, where she rode out the remainder of the squall.

In two hours from the time that the storm had first reached us it had all passed away, the sun had burst out again, and only a long low swell sweeping over the oily-looking surface of the river, remained to mark the late commotion.

A southerly wind springing up we took advantage of it, and by dusk got back to the place where we had camped upon the previous night. There we found an old Indian man, six women and three children, preparing to hang their hammocks to poles stuck in the beach; and ascertained that they were the owners of the adjacent houses. We naturally expressed our surprise to the old man at his camping out when he had a house to go to; upon which he informed us that he did so owing to the numerous mosquitoes in his dwellings, which prevented him from obtaining any sleep. That could not have been the right

reason, or it would apply equally as well to every night of the year, in which case he would have no occasion to own a house at all. We therefore concluded that it was the jiggers and fleas that had accumulated on the house-floors during his absence that proved the true stumbling-block to its occupation.

This old Indian or Tapuyu informed us that he held the post of "Captain of the forest" in this region, and on the following day we went with him up the Igaripé Jamaraqua, and through the bush to the high lands.

When we quitted the place we got out a tow rope, with which our men, walking on the beaches, pulled us more rapidly along than we could have gone by aid of the paddles alone.

In passing Aramanahy we saw our guide and two friends stretched out beneath the shade of the spreading tree on the beach, taking their afternoon nap. The port now looked deserted, the schooner and scow having taken their departure, while only two montarias remained hauled up on the beach.

We spent a night for the second time at Samaüma in the fire-ant house, and next morning went back in the country guided by an old man who lived near. In walking along near the top of a recently fallen tree we heard some animal rush from beneath it, producing a great noise as it tore along through the undergrowth. Catching a glimpse of its retreating figure, disclosing a brownish creature, the Interpreter, who had a dread of tigers, made sure that it was one of those savage animals. As we all stood trying to get

a sight of it, it suddenly wheeled about and came in our direction along the path, making for the Interpreter, who now felt convinced that his surmise was correct, and that it was flying straight at him. Springing upwards with a yell, to save himself, he allowed the animal to pass directly beneath his feet; when holding its headlong course, it came banging sideways right against the Chief's shins, nearly bowling him over and giving him such a blow that he felt the pain for some minutes afterwards. Then it made off to the right, running straight into a small tree with force enough, we thought, to brain itself, though it did not, for we heard it crashing along through the bush for some little time. When brought up standing for an instant against the tree, we were able to make out what manner of animal it was that had caused such confusion in our ranks, and were surprised to find that it was only a labba. Being a nocturnal animal its eyesight in the daytime was defective, consequently when aroused from a sleep under the tree-top, by the sound of our footsteps, it had made off to escape us; and, not being able to see exactly where it was going, had run into our arms.

After passing the pretty harbour of Alter do Chão late in the afternoon, we landed near the hill of the same name, and ascended it. As it was then ten minutes to six, and darkness we knew would cover the face of nature by a quarter to seven, we ran most of the way across the half mile of campo to its foot, and then ascended it as rapidly as the very steep nature of its grass-covered sides would permit. Upon its roof-like summit, at a height of 315 feet above the

river, we sat down to get breath, and admire the fine bird's-eye view which, as it were, lay at our feet.

The lake of Alter do Chão with its white beaches, the sand bar across its mouth dividing it from the harbour, and its two broad regularly shaped southern arms, formed a very striking part of the view. Then our vision spread over the wide Tapajos, whose bright-coloured stretch of water, bounded on the west by a low dark-blue line of forest covering its opposite bank, is over eight miles in width. White sand beaches and curious curved sand spits are characteristic objects of the view; and these, shelving out beneath the surface, lend some fine tints of various shades of green to the river's surface, as coral reefs do to a tropical sea. A small schooner, lying under the lee of Cururu sand spit, looked to us like a little toy boat. Next we noticed the dark sombre-looking forest covering the table-lands we had lately visited; the small smooth isolated hills to the east and south-east; and the pretty grass lands sprinkled with small trees and groves, which spread away towards Santarem.

As night closed in we descended the hill, and regaining our boat sailed on to Cururu point, where, in the inky darkness which by that time prevailed, we had great difficulty in finding the narrow winding boat channel which crosses the spit and saves a long journey round. Paddling, poling, and towing, as circumstances allowed, we toiled on pretty nearly all night. At one period we tried to sail, and thus getting far out from shore had to give it up and paddle back, a feat that occupied a considerable time, and gave us some anxiety, as we thought in the dark-

ness that we had lost our way. In so doing we passed a schooner with an open fire on deck, which gave it, and its crew who stood within the reflection of the flame, a very fiendish appearance. Having gained the coast at four o'clock in the morning, we were threatened with a rain storm, and so ran into a little cove for shelter. There we made the boat fast, and crawled in under its toldo, when, being weary, we dozed for a short period. The rain did not fall heavily, but drizzled away until daylight, at which time we continued our journey.

As the morning wore on, the breeze got up, and by the time we came to a point in sight of Santarem, the waves were so high that we could make no headway against them, nor attempt to tow near the shore without being swamped. We therefore had to wait until the breeze fell in the afternoon, and then finish our journey, arriving at our domicile in Castle Street at dusk, in a weather-beaten, sun-dried, though happy condition.

Wishing to see the table-lands and settlements to the southward, we were kindly provided with horses by the agent; and the Chief, Engineer, and Interpreter set forth on this journey together, at an early hour one morning, a few days after our return from the Tapajos. Leaving the scrubby bush at the back of the town, we emerged upon fine open campo country, where the cool morning air waved the thin blades of grass springing up here and there through the hard sun-baked soil. Presently the curatella and other campo trees became more numerous, and shut in the view,

but still we had some fine glimpses of low, conical, red-earth hills, some little distance to the south-west.

Descending gradually we entered a true forest growth, traversed by the cart-road we had followed. Many pretty glades opened up before us as we rode along, and in one or two places—at the crossing of a limpid brook, and at a hurdle-gate—had it not been for the surrounding wealth of creepers and profusion of tropical trees and shrubs, we could almost have fancied ourselves in an English wooded lane.

One and a half hour's ride from Santarem brought us out of the forest upon a large clearing, at the very foot of the table-land, where there was a good-sized thatched house and some outbuildings. Seated in a rocking chair in the verandah of the house was a thin elderly gentleman—an American, known amongst the others of his countrymen hereabout as "the judge."

We inquired of him the way to Mr. P——'s house, but strange to say he could not give us much information about it, merely waving his hand towards the wooded hill-side, and saying it was "somewar thar."

We went on along a narrow road which wound upward upon the hill-side, and soon reached the level top of the table-land, which is evidently continuous with that of Aramanahy, having the same rich soil and a similar growth of large forest trees. There the road terminated in a large clearing containing fine, well-grown sugar-cane, and a small upright wooden mill which lent a plantation air to the spot. Leading from the mill down the slope to the judge's premises

was a wooden trough, some 300 yards or so in length, by which the cane juice is conducted to a small still, and there manufactured into white rum.

We retraced our steps down the hill, making on the way a detour to a house, which proved to be the one we sought, but unfortunately its owner was absent for the day. As we were repassing the judge's house, that gentleman invited us to "onlight," and we sat for some time, in veritable Yankee rocking chairs, in his cool verandah conversing with him.

In answer to our inquiries about the American Settlement here, he kindly gave us an outline of its history. Some five years before the period of which we now write, a Major Warren Hastings made a contract with the Brazilian Government to bring out to this district a certain number of American immigrants in a given time, for which service he was to receive for himself and them a grant of sixty square miles of land in rear of Itukie and Santarem. He died when he had supplied only a portion of the requisite number, so that the contract has not been fulfilled, and the land still remains Government property, with the exception of those small portions which have been purchased by the American immigrants, and some English gentlemen who have settled there. Of those brought out many are dead, a considerable number have gone away, and the colony now numbers hardly fifty individuals. A large portion of them were "Mobile wharf rats," who did not come to work and earn an honest living; they fought nightly with the Brazilians, and amongst themselves, in Santarem streets, many falling victims in these brawls. The Brazilian Govern-

ment got rid of them as fast as they could induce them to go, paying even their expenses back to America.

Thus the honest and industrious portion of the original lot had to work hard to earn a livelihood, as well as to live down the bad name the "wharf rats" had bequeathed them. It is encouraging to learn that those now left there are doing well.

On our homeward way in the afternoon we turned off the cart-road to the left, and came to the agent's country house, a large one-storied edifice, pleasantly situated close to the bank of a small stream. The thatched roof of the house, being continued a good way beyond the eaves, made a wide verandah in front, which was walled in and had a small gate entrance. The rooms were large and gloomy, and there was a great dearth of windows.

A son of the agent, who happened to be in at the time, gave us a delicious drink, made of a fruit called *Atter*, which was very refreshing after our hot ride.

Accompanied by this gentleman we walked up a bare conical hill near by, composed of highly ferruginous sandstone in its upper portion, from the top of which we had a fine view of the surrounding country. On descending we passed through a plantation of cashew and other fruit trees.

Remounting our nags we set off at a gallop, and did not draw rein until we arrived at the door of our own mansion, at four o'clock in the afternoon, as hungry as troopers, not having partaken of any food from the time we had had our morning coffee at six o'clock.

On the day succeeding the one on which we rode to

the table-land and agent's sitio, the Chief, Botanist, and Interpreter prepared for departure from Santarem, by packing up, in order to be in readiness to start by the steamer, due on the following day, for new head-quarters at Obidos.

At the appointed time the steamer of the regular line arrived, and as we were getting ready to leave our quarters, in walked Mr. Davis, our fellow-passenger from Liverpool to Pará in the 'Paraense,' with whom we had contracted a most sincere friendship. Mutually delighted at meeting, we all gave up our several employments, and crowding round him learned the latest news, and then chatted over old reminiscences. He informed us that he was on his way up to St. Antonio, on the Madeira river, having been engaged in the capacity of civil engineer by two Yankees who were going up to examine the site of the proposed Madeira and Marmore railway, for the purpose of seeing whether the undertaking which had failed in English hands, could be turned to account by Americans.

We then went together on board, and at 2 A.M. turned into our hammocks on the awning deck, the steamer being still at anchor discharging cargo. It was fully eight o'clock on the following morning before all the cargo was out, and we were under-weigh.

There was nothing of interest to be seen in the portion of the Amazon between Santarem and Obidos, a distance of eighty miles, as, with the exception of a line of red cliffs some fifty feet in height, crowned with cultivation and a few houses, at one place on the south side of the river, all was a repetition of what we had

previously seen in travelling between Monte Alegré and Santarem.

The Amazon narrowed as we approached Obidos, becoming quite free from islands, and the town could then be seen at a considerable distance, nestling on the eastern slope of a hill, which presents a series of red and white cliffs to the river in its western extension. We steamed along the south side, nearly brushing the low clay capinga-covered bank, till almost opposite the town; and then slipping across, dropped anchor close to the beach.

# CHAPTER VIII.

## SURVEYING ON THE TAPAJOS.

Preparations for Journey on the Tapajos — A Night at Alter do Chão — The Eccentric Individual again — Encamped at Jurucui — Boat sinks — Bees attack Sugar — Bindobaldorcis — Night Adventure — Downpours — Semi-tame Eagle — A curiously chosen Camp — Tremendous Thunderstorm — Camp alongside Dead Porpoise — Kindness of old Indian — Portuguese Trader — Start on Return Journey — Difficulties encountered — Warning Signals of Frog — Night of Suspense off Cururu Point — Santarem in sight — Meet last and heaviest Storm — Reach Santarem — Rejoin Head-quarters of the Commission.

WHEN the Chief and Botanist proceeded to shift their quarters from Santarem to Obidos, as narrated in the previous chapter, it was decided that, instead of accompanying them, the Engineer should go up the Tapajos river for the purpose of making a survey of the Company's territory thereon. It was not without much discussion and some anxiety that this arrangement was agreed to, for many objections and difficulties presented themselves, which rather increased than diminished upon reflection. In the first place, we were now in the midst of the rainy season, and could not expect settled weather, while, on the contrary, it might possibly be very stormy indeed. In the next place, no good boat could be secured. Santarem had been thoroughly searched, and only one approaching suitability had been met with, but she was clumsy, leaky, and without a toldo, or covering, while her sail was a

mere rag. Another formidable difficulty was the want of a good crew. The best of our three Portuguese sailors was struck down by fever, and the Engineer would have to rely upon the other two for everything, including assistance in surveying, management of the boat, preparation of meals, and formation of camps. Neither of them knew a word of English, and, in the absence of the Interpreter, communication between master and men would have to be carried on chiefly by means of signs.

Against these difficulties, and others of the kind which started up as the matter was considered, we had simply to place the one fact that the work to be done seemed important, and, if not set about at once, could not be attempted for another six months, on account of the rapid rise of the river, already commencing. Very shortly it would cover the whole of the beach skirting the Company's territory, along which the survey was to be made. It was felt that, in the face of this one fact, obstacles and difficulties must be overcome, and the preparations for a start were hurried forward, though not without some misgivings as to the issue of the journey. The owner of the boat consented to rig up a rough palm-thatched toldo, to piece out the fragmentary sail with some coarse sacking, and to make an attempt to stop some of the leaks. Provisions for a month were got together, consisting mainly of salt beef, cod-fish, biscuits, coffee, and potatoes. Only such goods and chattels as were absolutely required could be taken on the voyage, and it was necessary to rent again the room at Dr. S——'s for the purpose of depositing there the remainder of the baggage. This arrange-

ment had the advantage of securing quarters for the Engineer, when he should return from his expedition.

All being ready, a start was effected on January 23rd, about nine o'clock in the morning, and after a pleasant sail of two hours with a fair breeze, Ponta Maria Josepha was reached. This is the cape that bounds the view up river from Santarem, and upon it the boat was beached, and breakfast prepared and eaten. On resuming the journey it was found that the wind had become very light, and the sun scalded so fearfully that it was painful to touch any part of the woodwork of the boat fully exposed to its rays. To escape the intense heat the Engineer crept under the toldo, leaving to José and Antonio the easy task of keeping a straight course; and there, in spite of all effort to the contrary, fell into a sound sleep. When he awoke a further change had set in; the breeze had entirely died away, the sky was of a leaden hue, and uniformly overcast, and the wide surface of the Tapajos was as smooth as glass. That uncanny stillness which, all the world over, precedes a thunderstorm was making itself felt, and the weird silence seemed scarcely to be disturbed, or rendered less intense, by the few sounds that fell upon the ear, such as the croaking of the frogs on the distant shore, and the occasional snort of a porpoise following the boat. It was near sunset, and Cururu point, where the Tapajos makes its great right-angled bend, was not far distant. The night promised to be an ugly one for encamping on an open beach, and it was therefore plainly wise to take to the oars and endeavour to reach the little settlement of Alter do Chão before the storm should

burst. Progress was, however, slow, owing to the heaviness of the boat, and the monotonous dip and creak of the paddles became prolonged far into the evening hours. Happily the rain kept off, although the lightning and thunder had become incessant long before a landing was effected on the beach of the little village.

José and Antonio had visited this place before, in the trip already described, and were therefore able to find their way at once to the house used by the party on that occasion. It was now shut up and the owner away, but the schoolmaster, who lived close by, said that doubtless it might be used again, and directed his youthful slave, who bore the grand name of Florentinus, to fetch a lamp and remove the screen of palm-thatch blocking the doorway. This appeared to be very unnecessary labour, for the vivid lightning revealed quite a number of apertures in the side of the building, any one of which might have served as an entrance for the party. The big empty rooms looked very gaunt and uninviting as Florentinus flashed the light of his lamp around them, but they would at any rate be better than a frail tent in such a storm as had now fairly commenced. A rough dinner was fetched up from the boat, and the schoolmaster, who had obligingly sent to his house for a chair and bottle of water, stood by throughout the whole meal, prepared to make the most of the opportunity now afforded him of learning the English language. He inquired what every article of food, and every vessel or implement "called itself" in the tongue he was anxious to acquire, and appeared to retire reluctantly from his lesson when his

tutor, for the occasion, hung his hammock under the soundest part of the roof, and proceeded to lay himself out for rest.

Profound was the solitude in which the Engineer passed that night, all alone in the great house, for José and Antonio had to sleep under the tolda of the boat to guard the baggage. A deluge of rain fell, and had not entirely ceased at dawn, when the schoolmaster was heard at the door of his quarters, saying in the best English he could muster, "Good morning, sir; how do you do?" On being invited in, and congratulated upon the rapid progress he was evidently making with the language, he laughed very heartily, and seemed to regard the compliment as one of the best jokes ever perpetrated. He accompanied the Engineer round the little settlement, introduced him to the highest official of the place, and then stood under his umbrella on the beach to give the expedition a parting salute as it started again in a dull, dispiriting, though not heavy rain.

Jurucui bay, where the Company's territory commences, and where consequently the work of surveying would begin, was not far distant; but there was no wind to speed the bark onward, and in the slow progress made by pulling, some hours were consumed. The sun shone out for a few minutes, and raised the spirits of the party during the process of preparing breakfast on the spot where the Chief and Botanist had encamped a fortnight before; but the hopes of fine weather caused by the brief brightness were quickly dashed to the ground, for a thorough downpour set in at noon and lasted until sunset. The day was passed

under the shelter of the trees or toldo, until it was evident that no advance could be made with the work, when the tent was erected and dinner partaken of. Darkness had no sooner set in than everyone retired to rest, for the melancholy light of one poor candle in a lantern was the sole illumination of the camp; conversation was impossible, on account of differing languages, and no employment of any kind could be devised to pass the tedious hours. In the long night which ensued, wakefulness must have characterized a part of it, even had not sleep been effectually broken by the roar of tropical rain falling upon the canvas of the tent.

Towards early morning the Engineer was roused from his last nap by the sound of excited, not to say frantic, talking; and on looking out was horrified to observe that a serious disaster had occurred—the boat had sunk, with many valuable possessions on board! The scalding sun of the first day had opened her seams, renewing all her former leakiness, and this, combined with the heavy rain that had fallen into her during the night, had proved too much. Fortunately the bay was shallow, and the floor of the toldo high, so that some of the cargo escaped serious damage, though much provision was irretrievably spoiled. The men were actually asleep on board when the misfortune occurred, but speedily scrambled ashore with no worse experience than an unexpected ducking. It was necessary to take immediate steps for bringing the boat to the beach and getting her bailed out. When this had been accomplished, the soaked provisions, clothes, and other goods were spread out upon

the sands, or hung upon bushes, to dry: then to avoid, if possible, another such catastrophe in the future, the Engineer sacrificed a towel, for want of better caulking material, and directed the men to stuff strips of it with clay into the gaping seams of the craft. He intimated that it was Sunday, and no attempt would be made to move forward; consequently they might take their time, and do the work leisurely and thoroughly.

Sitting in the shade of the tent in full view of the cargo-strewn beach, he opened a little Portuguese Testament and commenced to read. The very first words he lighted upon, and began to translate, were these:—"Sirs, I perceive that this voyage will be with hurt and much damage, not only of the lading and ship, but also of our lives." It was impossible to avoid being startled by the appropriateness of the first part of the sentence in the circumstances, and, though by no means superstitious, to consider somewhat carefully whether the latter part might not have been directed to catch the eye as a warning of danger. All the familiar stories, in which intimations of peril had been conveyed to people in this particular way flashed across his mind, only to be set peremptorily aside as he reached the conviction that the whole thing was a mere coincidence. It may be well, however, to mention at once, without attaching any special significance to the fact, that the words, as the sequel will show, were literally fulfilled, one member of the little party losing his life through this expedition.

José and Antonio, who catered for themselves, had brought with them a large box of brown sugar for the purpose of sweetening their coffee; but the water

had unfortunately got into it, and the whole was now reduced to a liquid of a most uninviting appearance, resembling greenish-brown mud. To throw it away, however, was not to be thought of, for no other could be procured, and the nasty-looking compound was placed on the beach exposed to the sun's rays, in the hope that it might recrystallize. Before long a swarm of bees was seen to issue from the forest, either attracted by the smell, or warned of the existence of this treasure by some wandering scout, and at once proceed to revel in the delights so unexpectedly opened up to them. The men hastened to the rescue of their property, but the bees resented this interference, and for a long time the scene was a lively one. At length the cover was placed upon the box, and the enemy effectually shut out, but they hovered round until sunset, in the hope of again effecting an entrance into the paradise from which they had been excluded after but a brief glimpse of its joys. The sugar subsequently lessened daily by consumption, but, to the end of the voyage, never became a dry substance again, and the difficulty with the bees was continually repeated whenever an attempt was made to expose it to the air or sunshine.

Fortunately the whole of Sunday was fine, with the exception of some trifling showers, and most of the things got fairly dry; but troubles in the matter of rain were by no means over, indeed, were only just beginning. Monday broke gloomily, and heavy rain fell from dawn until noon; but after mid-day it cleared, and a fair start was made with the survey. Lines were set out and measured round the rocky headland with

the singular name of Bindobaldoreis, forming the south-western extremity of the little bay of Jurucui. The sun set magnificently that evening, but, whatever of promise there was about it, proved to be miserably delusive, for the worst storm yet experienced fell during the night on the encampment. The most unpleasant feature of it was the high wind, which slanted the rain so much that a tent, open at the sides and ends, proved almost valueless for shelter. It lashed the waters of the Tapajos into such fury that huge rollers, like sea billows, broke upon the beach, and the roar was almost deafening, completely drowning the pealing of the thunder.

The Engineer kept himself dry as best he could in these untoward circumstances, by spreading a waterproof coat over his hammock, and wrapping himself in his rug. In a temporary lull he dozed for a moment, and, with the strange inconsequence of dreams, was at once in England, sitting with his friends by a comfortable fire-side relating the incidents of his travel. Some one was complaining of the crudeness of the letters he had sent home from time to time, alleging that there was nothing in them but relative pronouns, "who, whose, whom, which, and sometimes what," (presumably a relic of school grammar washed up from the past), when suddenly he was awakened by a fresh outburst of tempest, and, at the same instant, felt something poking and prodding his ribs from beneath his hammock. For a moment he was startled, thinking that some wandering jaguar had taken shelter with him, and had just discovered that board, as well as lodging, was to be had in the tent. Great was the

relief to find that no such formidable visitor had turned in, but only José and Antonio. They had been sleeping on board the boat, until she had threatened to dash herself in pieces upon the beach; when, after anchoring her in deep water, they had come ashore to secure a refuge for themselves, and a safe place for their as yet undamaged bread. No other protection than such as the tent afforded offered itself, and this was very limited and indifferent; but, making the best of it, they had proceeded to arrange some sort of bed for themselves on the sands under the Engineer's hammock. In doing this they had not succeeded in keeping their elbows from coming, somewhat unpleasantly, into contact with his body.

The scene in the morning was suggestive of the escape to shore of a shipwrecked party. All the baggage had been got out of the boat lest she should go down again, and was scattered about the sands in little heaps, covered with every available wrapper. Big waves were rolling in along the curved sweep of sand fringing the bay, and as the Tapajos is so wide in this part that the farther shore can only be seen in fine weather, it presented all the appearance of the sea itself. The boat was tossing wildly, and tugging so furiously at her anchor that it could well be understood why she had been provided with such a heavy one and a cable stout enough for a small schooner: José and Antonio were on their knees, frantically blowing at some tiny sparks to try to kindle a fire; and black clouds were driving across the sky, evidently threatening another discharge. A cup of coffee was secured at last, but all the crockery-ware had been

smashed in the first few lurches given by the boat, as the storm swept down upon her. Thenceforth it would be necessary to rely entirely upon the tin mugs and plates, with which fortunately the expedition was provided.

The downpour which shortly recommenced was exceedingly heavy, and lasted the entire day. Now this constant succession of bad weather had not been bargained for, and a retreat upon Santarem began to suggest itself as a desirable step. According to plan, this little bay should only have been touched at for getting breakfast, and starting the work; but already the camp had occupied it four days. However, "hope springs eternal in the human breast," and the clouds had scarcely shrivelled up at sunset, giving place to a magnificent show of stars as the night deepened, before the conviction was formed that, after this last severe outburst, the adverse elements must for a time have spent themselves. To a certain extent this proved correct, for the succeeding few days were characterized rather by heavy showers than by incessant rain.

Throwing away all the provision that was too sodden to be of use, and the fragments of the broken china, the remaining goods were stowed in the boat, and quarters shifted to the Indian village of Samaüma, some four miles up river. Here, advantage was taken of the shed, at the rear of the unoccupied house, used by the former expedition; and as this afforded better shelter than the tent, while the nights continued to be somewhat stormy, it was used as a lodging place for the remainder of the week. Every day, the whole of

the party went out, and prosecuted the survey in fine intervals; leaving all the baggage unwatched in the open shed. Not a single article was, however, at any time missed, so honest were the inhabitants of the neighbouring little houses scattered along the low cliff, buried in palms, plantains, guavas, and other tropical growth, which formed the little settlement of Samaüma.

A semi-tame eagle was attached to this village, having a snowy breast and plume of feathers on its head, while its back was a mottled grey. This ancient-looking bird appeared to take a great interest in the surveying, and accompanied the measuring party for two entire days, eyeing their proceedings from the rear of bushes, in a suspicious manner. In the evening it flew on before them as they returned to their quarters, alighting on the top of the mast of the boat to await their approach, and remaining there, apparently absorbed in meditation upon the mysterious doings of the day, until startled thence by the plunge of the Engineer into the Tapajos for his evening bath.

Sunday was again spent in resting, and repairing the damages of the week, but on Monday morning orders were given to put everything on board and shift camp. Just as a start was about to be made, the rudder of the boat was found to be missing. It had been lying on the sands on the previous day, and used as a bathing board; but a storm of wind and rain had swept up the Tapajos during the night, which had greatly altered the conformation of the beach. It was a cumbrous affair, as much as a man could lift, and made of a wood the specific gravity of which was

almost as great as that of water, consequently it appeared impossible that it could have gone far. The shore was searched for a quarter of a mile in both directions without discovering a trace of it; and it then seemed certain that it must have been buried under the shifted sand. This was poked and probed, for a whole hour, with pointed sticks and cutlasses; but no better success attended this labour, as far as the finding of the rudder was concerned. However, the time and trouble were not altogether wasted, for a good cutlass was dug up, such as the men used for cutting their way through the forest, and worth in that country about four milreis (8*s.* 8*d.*). Very reluctantly the search had to be abandoned, and the journey resumed in this crippled condition. At noon, whilst continuing the survey of the beach, an igaripé was reached, and there, at the head of a tiny inlet, lay the truant rudder, placidly reposing on the sand, with a don't-come-troubling-me sort of look about it, which was sufficiently provoking after all the worry it had caused. Had there been any hope of making it feel, one would have been tempted to bestow upon it a hearty kick. How it could have reached that spot was a mystery, for it was more than two miles from the place where it had been lost, and all the intervening shore was fringed with trees and bushes, growing far out into the water, in any of which it might have caught, and been held fast. However, it was at once joyfully secured, and thenceforth more carefully watched.

In the afternoon José was sent forward to find a suitable place for a camp and prepare dinner, while the survey was being prosecuted in the same direction.

It was only a short walk from the place where work was finished for the day to the spot he had selected; but why he had chosen it was an insoluble mystery, for a more exposed position could not have been found. He had settled down on the extreme point of Cajetuba, one of the capes which project farthest into this lake-like portion of the Tapajos. The forest-covered part of the promontory runs out boldly in advance of the general line of coast; but beyond it, stretches a long sandy undulation covered with stunted bushes; while, beyond that again, the cape still prolongs itself in a great weary waste of white sand, intersected by large pools. Out on the very apex of this spit, one saw considerably more of water than of land, and the forest was so far away that suitable tent poles were unprocurable. José was doing the best he could with the spars and paddles of the boat, but the only available ridge pole was so slight that it bent in an alarming manner under the weight of the canvas. It was too late to alter his arrangements, however, for the short twilight had quite faded, and night set in; but it was not until many experiments had been tried with the frail structure of the tent, that the Engineer ventured to commit his weight to it. He could only hope that the night would be fine, and that it might escape the additional strain of tropical wind and showers. Such a happy immunity from trial was, however, more than could be expected. Thunderstorms had been drifting about all the afternoon, and soon after midnight a remarkably persistent one came over the camp, and proceeded there to discharge itself. When awoke by the blinding flashes,

and the patter of the rain, he remembered that he had recently taken occasion to make some disrespectful remarks in his note-book about tropical thunder and lightning—which, though exceeding his expectations in frequency, did not, he alleged, come up to them in the matter of intensity—and it at once occurred to him that the electric forces had only waited to catch him thus at a disadvantage to take the opportunity of giving a specimen of what they could really do. Fearing every moment that the slight ridge pole would snap and impale him, he hastened to get up, array himself in a waterproof coat, and go out upon the beach to view the strife of the elements. For hours the focus of the storm seemed to remain exactly in one spot, just off the point; for the lightnings darted forth from one centre, and the intervals between flash and thunder-peal were always of just the same length. The fancy haunted him, as he strode up and down, that the camp resembled a little Ashantee village, and the storm a British ironclad engaged in bombarding it.

This was not the only occasion on which José made an unfortunate selection of a camping ground—in fact, he had rather an unhappy gift that way. A few evenings later it was found that he had erected the tent alongside a huge dead porpoise which the waves had cast upon the beach. The monster was beginning to smell a little strong; but again it was too late to alter José's arrangements, and, as the Engineer sat down in the twilight to his dinner, which happened to be of salt fish, his appetite for once was not equal to the occasion. Before morning the turkey buzzards

had scented their prey, and when he jumped from his hammock at sunrise, there was a great flapping of wings, as a considerable flock of these unclean birds rose heavily and alighted on the neighbouring trees; from which, however, they soon returned to the carcase, where they resumed their singular hopping and skipping around it, while they tore off here and there some choice morsel. It was pleasant to get away from this sickening scene.

On another afternoon of this week, José was sent to remove the tent from the cove in which it was standing, and take it forward as usual; but before he could get back to the spot, a heavy ground swell suddenly set in—the effect, it may be presumed, of a severe storm in some other part of the vast river expanse. The surf was exceedingly high and dangerous, although hardly a breath of air stirred; but instead of accepting the situation, and allowing the tent to remain where it was, José must needs carry out his instructions at the risk of his life. Consequently, when the surveying party returned, quite expecting to find the old camp still extant and dinner prepared, they beheld the form of the boat against the sunset sky, kicking and plunging in the breakers, utterly beyond the control of one man. Some current seemed to be drifting her from the shore, and the chance of getting anything to eat, or any shelter for that night, looked very remote. It was in fact long after dark before these desirable things were attained.

On all such occasions as these, Antonio, who was a man with a temper, did not fail to rate his comrade so soundly in flowing Portuguese, that it was un-

necessary for the Engineer to draw upon his limited vocabulary of the language for expletives to bestow upon poor José.

One night of this week was passed in a mandioca shed at the Indian village of Aramanahy, and a pleasant camp was secured for the following Sunday, in a sandy cove sheltered by trees and bushes. It was on a cape called Ponta Magoary, and commanded a view of the whole of the pleasant forest-clad coast, with its charming bays fringed with graceful sweeps of sand, back to Cajetuba, some eight miles distant.

Not far from the tent was an Indian's house, with poles stuck upright in the sand before it, to which the inhabitants hung their hammocks at night. Although the weather was now so showery, it was noticed that they continued to leave the shelter of their roof to sleep under the stormy looking sky. Whenever the Engineer passed the house that Sunday, the little naked children ran after him, holding out their hands and bowing their heads for his blessing, which he very readily bestowed.

The early part of the following week was, in the matter of weather, favourable for work, but the Tapajos was rising so rapidly that the beach was becoming narrowed to a very little strip; and there were several wide igaripé mouths to cross, which had to be measured by triangulation. By noon on Thursday the little settlement of Jamaraqua was reached, consisting of two houses occupied by the Indian with a numerous family, whose acquaintance had been made by the other members of the Commission on the occasion of their visit to this locality. There were

also some remains of deserted dwellings, abandoned probably on account of the fire-ants, and a tiny lonesome-looking cemetery with a child's grave under the shadow of the usual large cross.

Hitherto, both master and men of the surveying party had been going without shoes or stockings, on account of the numerous quicksands and pools of water through which it was necessary to measure, rendering these articles—so essential in civilized life—mere nuisances. The presence of the fire-ants, however, completely altered the state of affairs; for these vicious creatures objected so strongly to the passage of the chain across their territory, and made such fierce attacks upon their disturbers, that it was not only needful to be well shod, but substitutes for gaiters had to be devised as an additional protection.

The lower part of the Tapajos is so unusually free from other pests, that it may be regarded as a paradise compared with other places in which the Commission had sojourned; and the fire-ant is by no means confined to the neighbourhood of this river, as many writers on the Amazon seem to infer.

The Indian at the head of the household at Jamaraqua showed much kindness to the surveying expedition, for it happened that a spell of stormy weather again set in about this time; and he evinced much anxiety to make the little tent as secure as possible against passing showers. Fetching a screen of palm thatch, he fastened it securely at the exposed end in such a manner as to make all perfectly secure and water-tight. This considerateness he supplemented by the presentation of a slab of dried *peixe-boi*, or fish-

cow—otherwise variously known as the dugong, lamantine, or manatee—that strange beast of the whale tribe which frequents the waters of the Amazon and its tributaries.

It formed the principal dish at two dinners and a breakfast, and was esteemed at the time as a pleasant change from salt beef and cod-fish; but when critically reviewed as an article of diet, and its toughness, indigestibility, and utter want of distinct flavour are taken into account, it must be confessed that the entire absence of peixe-boi from bills of fare in England is not a matter for keen regret.

The camp remained at this place two nights, detained by stress of weather. Perhaps Jamaraqua was never more lively than on this occasion; for, in addition to the surveying party, a Portuguese trader from Pará, travelling in a small schooner, smartly painted in green, red, white, and black, and as neat and trim as a new pin, was paying it a visit. Scarcely less smart than his craft was the gentleman himself, with his brightly-polished boots, silk umbrella—open alike in rain and sunshine—and his full costume, including coat, collar, and necktie, so rarely seen in these regions. He was disposing of combs, ribbons, and doubtful jewellery, and receiving in return baskets of farinha. After his departure, our old acquaintance, the 'Helvetica,' came up river on some unknown errand, and stopped for a few minutes.

A somewhat lively scene was witnessed on Saturday morning, when, in a temporary burst of sunshine, the camp was removed, and the survey recommenced. The women of Jamaraqua suddenly issued from the

house, armed with lances or pointed sticks, and ran down to the beach to hunt fish. The younger ones threw off all their clothing, while the remainder gathered their garments up and around them, and every one waded into the shallow water, where they proceeded, with great dexterity, to spear the fish, which they had probably observed to be visiting the shore in unusual numbers. As the sport advanced they grew quite excited, rushed about with great rapidity, and made the air ring with their shouts. It was so important to get on with the survey that time could not be spared to observe the result of their efforts.

That night, in his hammock, the Engineer made a full and anxious review of the situation, and decided to start for Santarem early on the following morning. Another week had come to an end; bad weather had again set in, the day having been stormy like its two predecessors; provisions had been much damaged, and were beginning to run short, and José had developed obstinate symptoms of dysentery, which made it important to get him rest and proper shelter as quickly as possible. In the intervals of fine weather afforded during three stormy weeks, the important work of accurately surveying twenty-two miles of beach had been accomplished, and it seemed very unadvisable to commence in the circumstances the further task of marking boundary lines in the forest-covered interior.

The entire distance to Santarem scarcely exceeded fifty miles, and it did not appear too much to hope that the return journey might be made in from two to three days, especially if, as sometimes happened, though very occasionally, a storm before which the

boat might scud by the help of her ragged sail, chanced to take the down river direction. But such a happy incident was not destined to mark this voyage, which, from first to last, was characterized by misfortune, and more than a usual share of that crookedness which so often mars the best-laid plans in this crooked world.

Soon after starting, a stiff breeze sprang up, of course in an adverse direction, but it was thought that the boat, in the wide sea-room, might be able to beat against it. While the sail was being set for this purpose, a heavy wave swept away one of the oars, which it seemed to be absolutely necessary to recover, inasmuch as there was left, without it, only an odd one on board. Nothing apparently was easier, for there the oar lay on the surface of the heaving water at no great distance behind, and it was only to put the boat about and pass close alongside. Every hand was stretched out to secure the prize as soon as the oar came near, but somehow everyone missed it, and of course laid the blame of the failure upon the others. A series of tacks led to no better result; several times the truant seemed to be within easy grasp, but some lurch in the wrong direction took it in a moment beyond reach. At length it was lost sight of altogether whilst fetching about in a more than usually clumsy manner, and much scanning of the waste of surrounding water failed to give a hint of the direction in which it now lay. Meanwhile the boat had, unobserved, greatly increased her distance from the shore, and was tossing about on billows of even dangerous dimensions for such an untrustworthy craft. A whole

hour or more had been wasted in fruitless efforts, and the breakfast hour had fully arrived. In order to prepare this meal, as well as to escape the heavy sea, it was absolutely necessary to get back to the beach, even if some progress in the direction of Santarem had to be sacrificed in accomplishing it. Not until two o'clock was land reached, at a narrow unshaded sand spit, dividing a small lagoon from the Tapajos, at no great distance from Ponta Magoary.

After breakfast a short rest was taken in order to allow the high wind to drop, as it usually did by degrees after 3 P.M. No means of progression were now available, except to tow the boat from the beach, where the sands remained above water and were free from bushes, or to pole her along in the shallows. By these means, Aramanahy was reached soon after dark, and a mandioca shed in the village again used for a resting place.

Antonio rigged up a rough oar before starting on the following morning, by nailing the cover of a box to the end of a pole. It answered admirably, and the spirits of the little party rose, as fair progress was made in the few calm hours succeeding dawn. About eight o'clock, however, the usual high adverse wind of the day sprung up and soon made rowing toilsome. Just in advance was the long projection of Cajetuba point, where the camp had been bombarded by the thunderstorm a fortnight before. This the men proposed to sail round, notwithstanding that it had been fully proved on the previous day that the boat would not beat against a wind dead ahead. The Engineer felt that the attempt was hopeless, but could not

forbid them to make it, for José was too much weakened by his complaint to do his share of pulling.

Up went the sail, and from that time until three in the afternoon—seven long hours—not a single step in advance was made. The boat only drifted farther and farther from the land, and got among great crested waves that threatened to capsize her. It was hopeless to think of getting ashore for breakfast; some potted meat and biscuit were therefore divided out and made to do duty for that meal. Fortunately a rain squall passed up river in the afternoon, which carried the wind round for half an hour, to a slightly more favourable quarter. Advantage was taken of this temporary change to make towards the shore, and in this way the spot was regained, as nearly as could be told, from which the sailing had been commenced at eight in the morning.

José and Antonio, still untaught by failure, were even then shifting the sheet to make the outward tack for about the twentieth time, but the Engineer put an authoritative veto upon this, and Cajetuba was mastered by rowing, just before sunset.

To save the trouble of forming a camp, and to redeem the day, if possible, from utter failure, the journey was resumed in the starlight—after dinner had been disposed of—as far as the village of Samaüma. A frog that had got into the boat and hidden itself under the planks, croaked dismally in concert with the creaking oars, but not a ripple now disturbed the face of the Tapajos. By nine o'clock the shed was reached that had afforded shelter for several successive nights during the first week of the survey.

Fourteen hours had been consumed in laborious effort and incessant pushing on, since starting from Aramanahy in the morning, and, as a total result, the magnificent distance of seven miles had been accomplished! It was clear that something must be done, or this journey to Santarem would be an affair of a week; in which case the next steamer up the Amazon would be missed, and poor José was evidently unfitted to bear the toil and exposure through so many more days.

That night the Engineer could not sleep, but kept turning over the whole matter, and trying to devise some plan for more rapid progress. Of late the days had been excessively windy, but the nights, on the other hand, unusually calm and placid. Plainly, therefore, the best arrangement seemed to be to rest by day, and travel during the darkness. In pursuance of this plan he resolved to go on the following morning, before the wind should rise, only as far as the site of his first camp in Jurucui bay, rest there until sunset, and then make a push for Santarem, which ought almost to be reached by the succeeding sunrise.

The early journey, and the rest for the day under the shelter of Bindobaldoreis point, were carried out exactly as devised. A fair start was also effected, in seemingly favourable circumstances, onward again in the twilight. The usual high wind had blown until sunset, but now there was only a faint breeze remaining, and, strange to say, it was from a quarter which allowed the sail to be used; although not very effectively, for it was scarcely filled. The bow of the boat was kept straight across the bay, for the ex-

tremity of Cururu point, while far away on the right gleamed a few faint lights, marking the position of the little harbour and village of Alter do Chão, which was thus being passed without a visit.

The frog in the bottom of the boat croaked dismally, and a few ominous looking clouds streaked the sky, but in other respects the aspect of affairs was encouraging. The position of the great sand bank off Cururu point could not well be determined in the darkness, and upon it the boat ran aground, but she was got off without much delay, and the channel found which carried her through. The course was now entirely different, for the great right-angled bend had been made, and the wind was directly contrary, so that the sail had to be lowered. There was a high sea running on this side of the point, and an ominous murmuring and blackness down river, that betokened the approach of a trovoado, or tempest. Before the men had pulled many hundred yards, it burst upon the boat in full fury, making the Tapajos hiss, and lashing it into a mass of white foam. In such a storm progress was not to be thought of, for stern battle had to be done for existence itself. The little craft was swept irresistibly towards the inhospitable looking shore, which here rose abruptly from the water—a mingled mass of trees and rocks, with huge boulders encumbering the base of the cliff, between which the waves sucked, lapped, splashed, and roared. Even had there been any hope of escaping this Scylla, the boat must have got into the Charybdis formed by the high surf, now breaking upon the sand bank beyond.

Only one thing could be done in the circumstances,

and that was to cast overboard the heavy anchor, attached to its stout cable, in the hope that it might catch in something, and save the craft from actually touching rock or sand. This operation was promptly performed, and the result watched with an anxiety fully proportioned to the extremity of the peril. Great was the relief when the boat brought up, at scarcely more than her own length from the boulders, and remained firmly held fast notwithstanding the frantic manner in which she tugged at the rope. In this position it was necessary to remain all night—one of the longest, perhaps, on record. Sleep was out of the question, for the short, jerky motion was most disagreeable, and the noise of the breakers, only a few yards distant, almost deafening. The boat required to be constantly bailed out, to keep her free from the water which leaked through, or splashed in over her sides.

The wished-for day dawned at last, and a comprehensive survey could be made of the situation. The wind had lost its first fury, but was still high, and the Tapajos rough. It was feared that the anchor might be jammed between rocks, so effectually, perhaps, that it would have to be cut away and abandoned; but fortunately this was not the case. At no great distance was a little rocky cove, with a sand beach at the end, and by great exertion the boat was got into it, and brought so near the beach that it was possible to jump ashore as the surf retired.

When all were landed, morning coffee was prepared, and then, as it was impossible to start until wind and waves had further abated, the Engineer took the oppor-

tunity of climbing up to the summit of Cururu, which, unlike most of the headlands of the Tapajos, has a bald pate rising above the fringe of the trees at its base to a height of nearly two hundred feet. The view towards Alter do Chão, embracing its singular hill, and the quiet little village and double harbour, was striking; but in every other direction the eye roved over a vast expanse of water, whitened by crested waves—a sight not pleasant to look upon when the beholder was impatient to resume his voyage in the very direction from which they all kept rolling up.

Breakfast was disposed of upon the little beach, and about noon José and Antonio thought that it would be possible to effect a start. It was a difficult matter to pull out of the cove, but beyond it there were sand beaches, along which it was feasible to tow. The weather slowly improved, and fair progress was made until dinner-time. The evening seemed very calm and quiet, and it was resolved to push on two more hours before encamping, notwithstanding that the frog seemed to be giving warning of fresh troubles by a more than usually lugubrious croaking.

After leaving Ponta Arapary, where dinner had been eaten, the men had to pull across a wide but shallow bay, fringed with bushes growing far out into the water. Scarcely was the middle reached before the usual signs of a trovoado made their appearance, and advanced with such rapidity that the storm struck the boat long before she had reached the other side of the bay. Down had to go the anchor again, as on the previous night, and although there was not the same alarming peril of shipwreck, the sense of safety was

almost overbalanced by the discomfort of the heavy rain which accompanied this storm, rendering it necessary to cover the whole boat with the sail, as with an awning, under which the heat was stifling.

The fifth day of the return journey now dawned, and it was resolved to make it the last, if that could be effected by any amount of ingenuity or exertion. The look of things at sunrise was, however, most discouraging, for the wind and rain had but little moderated. A passage was found through the bushes and trees growing in the water to the land, and there it was necessary to remain until after breakfast. That meal was hurried forward about half-past ten, when the weather gave evident signs of improvement. Slow but steady progress was made all through the remainder of the day, until, at one hour before sunset, Ponta Maria Josepha was reached, and there Santarem appeared in full view—a most joyful sight. José, however, was much exhausted, and the others not very fresh, consequently the Engineer gave orders to go ashore for dinner and a rest of two hours.

Twilight had deepened into night when a start was effected for the last vigorous push. A crescent moon hung in the sky, in that position which is known in some parts of England as "lying on her back," and is variously regarded as a sign of both fair and foul weather. The frog was, as usual, sending melancholy croaks from its place of concealment, but not a ripple, except those caused by the oars, ruffled the face of the deceitful Tapajos, which looked as if a storm never had disturbed its composure. The steerer brought the bow of the boat to bear directly upon Santarem,

represented by a row of faint far-distant lights, which were gazed at so long and anxiously that they became stereotyped upon the memory for ever—eight tiny specks of brightness ranged in a straight row, six together, and one on either flank at greater distance, with as many dim lines of reflection upon the water below. Very gradually they widened out and became more distinct, indicating a closer approach to the town; but half the distance had scarcely been completed, when an ominous sight presented itself to view—a long flat arch of inky blackness, heaving up behind the lights, blotting out the stars, and slowly advancing to take possession of the entire sky. The rowers saw it, and increased their speed, putting still greater energy into their exertions every time they glanced round to mark the progress of the cloud, until the heavy old boat spun along through the water in a way she had never before been got to do during the whole voyage.

But the storm was the destined winner of the race, though by a few minutes only. The Santarem beach was just abreast of the boat, so near that the people on the shore could be easily hailed; it was only necessary to pull on to the slip-way, which formed the most convenient landing; when suddenly the wind and rain burst simultaneously, with such fury that the little craft brought up at once, staggered, and refused to face it. No previous storm, throughout the whole expedition, at all equalled in intensity this last bitter experience, especially in the matter of rain, which poured down in sheets, as though the whole Tapajos had been caught up into the sky, and was descending in one wild deluge. With the utmost difficulty the

boat was got to the shore somehow. The Engineer sprang to land, drew around him the skirts of his mackintosh, and made a desperate rush, with José at his heels, straight for Dr. S——'s house, splashing through water a foot deep—the streets being for the time converted into rivers by the terrible downpour.

The Doctor could not at first recognize the two dripping figures standing at his door, and shook hands with master and man in an equally affectionate manner; but as soon as names were mentioned, and he had recovered from the confusion of this very natural mistake, his hearty "Come right along in" sounded cheering, and was very promptly responded to.

That night, when the Engineer had changed his wet and travel-stained garments for dry and clean ones, and had sunk into an easy chair, it seemed to him as if he had got home, so great was the contrast of his circumstances when compared with the lonely tent experiences of the previous month. Only to sit once more on a chair, or take his meals from a table, or glance down the columns of a New York paper of rather ancient date, seemed to him like novel luxuries; but the greatest pleasure of all was to recover the use of his tongue, and hear and speak once more his own language.

The Doctor, it appeared, had re-let the room engaged by the Engineer to a Mr. C——, of the South American Missionary Society, but he gave him the use of his dispensary instead, and for a stay of one or two days this arrangement did well enough. It was delightful that night, as he lay in his hammock, to listen to the

steady beat of the rain upon the tiled roof, thinking how little it now mattered what outrageous weather might be in store, and defying it to do its worst in familiar quotations from King Lear. José was at once placed under the Doctor's care, but it was evident that shelter and rest were what he most particularly required.

The steamer due to pass Santarem on her way up river on the following day did not arrive until the succeeding noon. She proved to be the 'Belem,' and in tow behind her was a steam launch, which was at once rightly guessed to be the one expected for the use of the Commission. The Engineer lost no time in placing his luggage on board, being ably assisted in the matter by the little vegetable boy, who procured the use of a horse and cart for the service, and nobly exerted himself in helping Antonio to transfer the various boxes and packages to the agent's boat, which was to convey it to the launch. As the Engineer was subsequently stepping on board, to go himself to the 'Belem,' the lad advanced, holding out a small, but, with him, unusually grimy hand for a parting shake, and that man would have been excessively churlish who could in the circumstances have drawn back from his hearty salute, on account of the dirt that might change hands in the process, but which a little water would speedily remove.

A steam up the Amazon of twenty-three hours brought the 'Belem' off Obidos, where Captain Talisman kindly went ashore with the Engineer, and assisted him in finding the house occupied by his

companions, who, as it was after midnight, were sleeping soundly in their hammocks. There was no necessity to remove the bulk of his luggage, for that was on board the launch, which was here cast off from the 'Belem,' and anchored at a short distance from the beach. More than a month had elapsed since the now reunited Commission had separated.

## CHAPTER IX.

### AT OBIDOS.

An Interioper — Discordant Noise — Itinerant Musicians — Town of Obidos — Old Indian Chapel — The Forts — Landing Cattle — Arrival and Departure of Vessels — Our next door Neighbours — We are taken for "Sewing Machine Menders" — Our hired Boy — A Homesick Portuguese — Depressing Weather — Adventure with Centipede — "An Englishman from Ipswich."

IT is necessary now to go back a little, and take up the narrative of events happening to the portion of the Commission who had removed their head-quarters to Obidos, during the period when the Engineer was engaged on his duties on the Tapajos.

On presenting a letter of introduction to the agent, Senhor Mirelles, he kindly accompanied us ashore, and showed us a house which he had engaged for us. He then sent a friend to show us another, which we could have in the event of the first not meeting with our approval.

Whilst looking over the second house a man of the upper class, judging from his dress, came in and seemed interested in the matter. The dwelling being too large and gloomy for us, though one of the principal edifices in the place, we did not like it, more especially as the rent was high. When this fact was communicated to the agent's friend by the Interpreter, the interloper above mentioned burst out like a volcano with a jumble of Portuguese, the interpretation of which was,

"The rent is not too high—you should remember that you are not now in England." He was promptly suppressed, and advised not to interfere; when our friend Mr. Davis who was with us, in order to put us in a good humour again, exclaimed in American style, "I say, you fellers, don't get so mad." It was enough to make us lose our tempers to be interfered with in this way, especially when it was not the first time such a thing had occurred.

Making up our minds to take the house first shown us, which had a more central position, we returned on board the steamer at dusk to await the debarkation of our traps and instruments. Mr. Davis's two American friends also returned from a stroll on shore, and gave an amusing account of their idea of the appearance of the place. Referring to the fort, which they had visited, one remarked that he *guessed* he could capture it if only armed with a toasting fork.

At a late hour our things were sent ashore in the agent's lighter along with other packages, and bidding good-bye to our friend Mr. Davis we quitted the steamer. Our luggage we found in the lighter in the mouth of a little creek, and the niggers in charge of it informed us that they were awaiting the arrival of an ox-cart to take it to our house, so we sat down on a log, and patiently waited with them.

Presently the most discordant noises were heard proceeding from the town above us, which somewhat resembled the braying of some half-dozen jackasses afflicted with hoarseness. It was faint at first, but got gradually louder and louder, until it suddenly ceased close at hand; but in the intense darkness we could

not see what manner of beast it was, until on approaching the spot we discovered the ox-cart, and then were made aware that the noise was produced by its ungreased wheels.

In it, accompanied by the sound, our things were taken to the house and stowed away. During our stay in the place we suffered daily from the ear-piercing clamour of that ox-cart. We could trace its course by the row it kicked up, beginning when away back of the town in the bush, like an elephant trumpeting, then merging into the jackass bray as it came out on the open behind the town, and finally passing our door with the noise of seven devils. Sometimes a troop of red howling monkeys in the neighbouring forest would cast in their voices with it, and the combined effect thus produced was very musical.

Having left one of our instruments in the steamer, the Chief returned to the landing, and hiring a little montaria, not capable of carrying more than three people, went on board. Whilst getting the instrument, two musicians, who had been plying their trade on the deck, jumped into his boat, where they stood up armed with fiddle and harp. Seeing them, and feeling sure that the crank skiff would not carry more, the Chief, in broken Portuguese, ordered them out. They would not budge an inch, but remained standing. Just then the montaria tipped a little on one side, and both musicians fell prostrate; the harper and his instrument, going partially overboard, hung on the gunwale in a semi-submerged state. With the assistance of the owner of the craft he was dragged from his perilous position, and lost no time in climbing

back into the steamer in a dripping wet condition, followed by his friend the fiddler. The Chief, taking advantage of the clearance thus effected, quickly jumped into the boat and was paddled on shore. Though pitying the foolish itinerants, he could not resist having a laugh over the episode.

Our house was on a much smaller scale than the one we occupied at Santarem, having only one fairly sized room, a small back one, and a hall on one side. Behind came a yard, with kitchen and servants' rooms on either hand, terminating on the top of a low cliff looking down upon the level area bordering the river. As this yard also backed upon another house, tenanted by a Portuguese youth, only one half of it belonged to us.

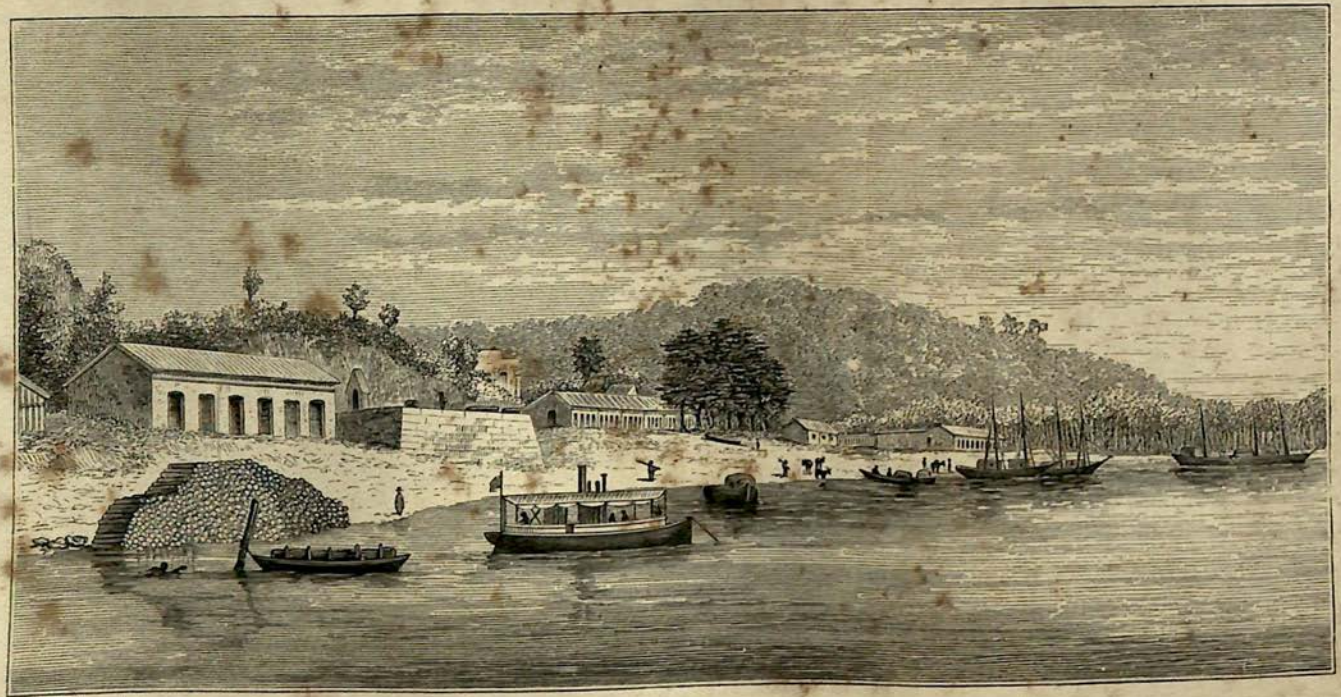
On the first day of our occupation we took a walk through the town, and ascertained the "lay of the land." We found that, though straggling-looking from the water, the streets have been laid out with some degree of regularity. There is a row of shops facing the river on the level area bordering the beach, forming the chief commercial portion of the town, which is shaded by a line of fine almond trees. Behind is a cliff which becomes higher and higher in a westerly direction, and decreases in a corresponding ratio to the eastward. From the ends of the street just described, two others lead up to the higher land on which the greater portion of the town is built. One of these—that on the west—is more properly speaking only a road, having no houses on either hand.

Our domicile was reached from the landing in the course of a couple of minutes' walk, by following the

street on the east, and was situated in the first of the two long ones, running parallel to the river, which traverse the main town. Here and there in these streets are likewise shops, placed chiefly at corners, which, like those on the shore, are small but good, and well supplied with merchandise.

One or two houses have two stories, while many of them have a small room with glass windows placed on their tops. They are chiefly built of a soft sandstone procured in the vicinity, and have tiled roofs and plastered fronts; the latter being washed or painted in different colours. One we observed had its front painted with broad vertical bands of alternate red and black, an arrangement which did doubtful credit to the taste of its owner.

At the western end of the town is a large grass-covered square, upon which faced the Igreja de Matriz or chief church of the district, a large decayed looking stone building, with tiled roof and side buttresses. The north side of the square is occupied by ordinary houses; the south by the barracks; while the western is unoccupied by any buildings, and terminates at the cliff edge, from which a fine view up the Amazon, to the mouth of its branch, the Trombetas, is obtained. At the point of the bluff amongst some shrubs are the ruins of an old Indian chapel, built by the priests, who some two hundred years ago formed a mission amongst the Pixuna Indians then inhabiting the spot. The walls of the ruins are made of clay, faced inside and out with square tiles. In front of it is a burial-ground; and, where the cliff has fallen away, human bones can be seen protruding from the soil. Within



*W. Lidstone, del.*

OBIDOS.

twenty yards of the front of the large church there are also two graves and the stone pedestal of a cross.

From the bluff at the cliff edge, about one hundred feet in height, one looks down upon the muddy water of the Amazon washing its base, and gliding noiselessly but swiftly past on its path to the ocean, bearing on its bosom countless small islands of floating grass, and huge logs of wood. To the eastward of the bluff is a small fort, having a powder magazine strangely placed close behind its guns. This fort, and another of peculiar construction on the beach at the foot of the cliff beneath, command the passage of the Amazon, which is here only 1730 yards wide. The beach fort, manned by soldiers of the "Guarda Nacional," has no embrasures, and its small guns, mounted on high iron carriages, are quite exposed. It was built to prevent an enemy's ship from passing up in shore, and thus avoiding the guns of the upper fort, as was once effected by a smart Peruvian gunboat.

From the western end of the longest street, at no great distance from the church, a steep path, with stone steps here and there, leads down to the beach on the west of the bluff, where, faced by a stone embankment, and clinging as it were to the base of the cliff, is a two-storied building. Why a house should have been built in such a confined position, in a country where there is so much spare room, it is difficult to understand. The cliff extends a long way up river, and is composed of pink, red, and white sand and clay beds of the recent deposit, overlying a soft sandstone of older date, little of which

could be seen at the time, owing to the height of the water in the Amazon.

The town boasts of a large tile factory, which turns out all sorts of articles of earthenware of the flower-pot variety, as well as jars for carrying water and water-coolers. Situated on high open ground in rear of the town is a small church, called "Bom Jesus," in the cool portico of which one can sit and enjoy the view of the town, and the Amazon beyond, as well as of the thick forests which close it in on the land side.

There was some little stir about the landing part of the town; small montarias, with parties of *moradores*, whose homes are on the river's bank in the vicinity, constantly arriving or departing. These montarias can often be seen gliding down mid-river with the current, or being paddled laboriously across from shore to shore. Some small schooners which had brought cattle to the port from fasendas on the lakes across the river, or from the Sapukia district, lay at anchor off the town. From one of these we saw cattle disembarked in a most rough-and-ready fashion. They were hoisted by their horns with block and tackle, swung out over the bulwarks, their necks being stretched by the procedure almost as long as their bodies, and then dropped suddenly into the river. Two lassoes, previously thrown over their horns, were held by two men on the shore; and as soon as the animal operated upon gained the beach, it dashed madly about in a semi-bewildered state, charging at one or other of the lasso men, who, pulling in opposite directions, were able to keep out

of reach of its horns, but were at the same time dragged about in a most ridiculous way.

A steamer calling now and then was not an uncommon sight during our stay; but the arrival of a large brigantine, which sailed slowly under a full spread of canvas along the southern shore, and then bowled across to the anchorage off the beach, was quite an event. It was an interesting thing to see a vessel leave port for the purpose of going up river. The current on the Obidos side being so strong, it was necessary for her to cross the Amazon, and then take advantage of the backwater. To accomplish this, she set all her sails to catch the breeze when the wind was blowing strongly up river, and boldly pushed out into the stream. An immediate conflict took place for the mastery of the vessel between the wind and current, and the latter, being the more powerful of the two, the unfortunate craft was swept down river. If she was successful, and the wind held, she was able after some time to accomplish her object, reaching the other shore some five or six miles below her starting point. On the contrary, should the wind happen to drop, she was left at the mercy of the current, and swept quite out of sight; but at the end of twenty-four hours she might be seen crawling slowly up the other shore.

When we returned from viewing the lay of the land we found the young Portuguese, our next door neighbour, busily spreading out some cowhides in the yard to dry. No sooner were they down than a crowd of Urubus pounced on them, and fruitlessly endeavoured to obtain a meal therefrom. It was not pleasant to

see the manner in which these birds jostled and fought together, uttering a hissing sound as they struggled to disengage a morsel from the tough hides. From that time forth our yard was the centre of attraction to all the Urubus of the district, and consequently no article of food could be left in the kitchen for a moment unguarded, without their finding it out and carrying it off.

The father of the spreader of cowhides arrived at Obidos after we did, and opened a wholesale shop next door. No sooner did he get his goods unpacked than the son came rushing frantically into our house with samples of them, to inform us of the fact, and solicit our custom. His stock consisted of Dutch cheeses, gin, claret, onions and sugar.

Subsequently, when a set of altitudes of the sun were being taken for the purpose of rating the chronometers, the old man and his son emerged from one of their outrooms with cowhides. Unfortunately our Interpreter being out at the time we could not have the situation explained to them, but begged them in the little Portuguese at our command to remain quiet for a few minutes, as their walking about shook the mercury in the artificial horizon. This they could not understand, but thinking we meant that their assistance was wanted they came rushing towards us, and thus spoilt a splendid contact of sun images. Finding that words did not convey to them what we required, we thought that actions might, so we tried to explain by stamping, that when they put their feet down it shook the ground and stopped our work. To our horror and dismay they misunderstood even this, and, evidently thinking that they had caught our meaning, both began to

stamp upon the ground like a pair of prisoners in a treadmill. We felt that we had never seen such a pair of utter idiots in our lives; and as by the delay we had lost our chance of obtaining good altitudes, we put our instruments in their cases, and, boiling over with heat and anger, gave up the attempt.

The first day of our sojourn in the town, whilst sitting writing after dinner, a native came in and inquired if we were "sewing machine menders." Of all the trades in the world to have pitched upon and assigned to us, this tailorish one was too much to be borne in silence, so we indignantly answered, No! and then went off into fits of laughter. We were by this prepared for the worst, and were not the least taken aback a few days subsequently, when a young woman came to inquire if we had any jewellery for sale. No doubt the advent of three *Inglesas* (Englishmen) in their midst was an event for which the inhabitants had much difficulty in accounting. They could only do so, by supposing that we had come for the purpose of trading in some sort of way; and seeing our meteorological instruments hanging against the walls of our room, they no doubt took them to be a part of our stock-in-trade. We felt this come down, from the high pedestal we had been placed on by all the polite people we had hitherto met, who addressed the Geologist as "Senhor Chefe"; the Botanist as "Senhor Dotour Botanista"; and the Engineer as "Senhor Dotour Enginheiro." This was to be expected in a country where a letter to a most ordinary individual bears on its envelope the prefix of, "Illustrissimo Senhor," before the person's name.

Unfortunately for all parties our faithful servant William began to suffer from a disordered liver, and could only just perform the duties of cook. We had therefore to hire a town boy to do our marketing, and bring a supply of water for drinking and household purposes. This lad worked for one day and then disappeared for ever, consequently on the following day we were without drinking water. An old blacksmith —a Prussian—who lived opposite, kindly procured us a little boy, a sharp youngster with smiling face, light mahogany coloured skin, and piercing black eyes, who thought of nothing but play. When wanted he was only to be found by searching in the adjoining streets, where he was invariably discovered amusing himself with a lot of other street Arabs. Expostulation was useless, and only called up a cunning grin on his visage.

His costume consisted solely of a pair of trowsers, kept up by a cord round his waist. At rare intervals he would appear on the scene crowned with a very dilapidated old beaver hat. He, however, did our marketing faithfully, and, with much hounding, kept us supplied with water from the fine clear stream that ran from a little lake in the woods behind the town, into the Amazon, not more than one hundred yards from our house.

This stream supplies the whole town with drinking water, and the portion of it at the end of our street was the haunt of washerwomen. Troops of negro and Indian slaves, both male and female, tramped past our door each morning and evening, carrying great earthen jars on their heads to and from this water.

In the bush, about one hundred yards up, was the bathing pool where we took our afternoon dip; and there on one occasion we met a young Portuguese shopkeeper, who strongly advised us not to bathe, as he was told there were both biting fish and snakes in its depths. The reputed presence of these injurious creatures did not affect him in any way, for like all his tribe he did not wash; neither did it prevent us from continuing our daily plunge, as we felt the necessity of a swim, snakes or no snakes. The poor fellow was evidently home-sick, for after informing us that he had only arrived from Portugal the previous month, he burst out into a tirade of abuse of the country, the Amazon, and the Brazilians.

During our sojourn in the town we had much rainy weather, a sort of short rainy season in fact, amongst which were two days of the most distressing, spirit-lowering weather that could anywhere be experienced. Though no rain fell upon those dreadful days, the sky was covered with a cloak of uniform leaden clouds, which seemed to hang without motion just above the houses, and exert a downward pressure on one's spirits, promoting the *blues*. The air felt moist, and the heat was intense.

The feelings thus engendered were that some great meteorological disturbance was about to take place, such as a hurricane or a fearful tornado. Happily this state of things passed quietly away, with nothing worse than thunder and rain storms.

One of these, occurring in the night, was a particularly furious one, as flash succeeded flash, and one roll of thunder merged into the next. It was accompanied

by terrific gusts of wind which caused the rain to drift under the tiles of our roof, obliging us to move for safety any perishable articles from the windward side of our room. At one time we thought the whole roof would be blown off, and one tile was actually dislodged, falling with a crash on our brick-paved floor.

These rains drove many insects into our house for shelter, where they took up their abode in cracks and crannies. Among these was a centipede, which leaving its hiding place one evening for a ramble, made its way up the Chief's leg, and out of sheer devilment buried its fangs deeply in his knee. With a shout of agony he sprang up, the book he had been quietly reading flying from his grasp, and seizing his leg tightly with one hand to prevent the further ascent of his tormentor, he began to try and rub the insect's life out with the other.

Centipedes have a hard shelly skin, are tough and tenacious of life, and refuse to be crushed; consequently he did not kill, though he somewhat bewildered the creature. The rest of the party at first viewed his antics with alarm, thinking he had suddenly gone mad, but getting some idea of the reason of the struggle, were unfeeling enough to look upon it as a cause for exceeding merriment, and abandoned themselves to the full enjoyment of the scene accordingly.

By careful manipulation and with much dexterity, he was enabled to extract himself from his nether garments, still grasping the part where the insect was located in one hand. Dashing them down he skipped nimbly on one side, while the seemingly un-

injured centipede rushed off, as fast as its numerous legs could carry it. It did not get far before the Botanist, with an eye to procure it as a specimen, pounced upon and transferred it to a bottle of spirits of wine, in which the Chief viewed its dying struggles with as near an approach to delight as the sharp pain in his knee would permit.

One evening we observed a human visage, peering in at our one front window, which was quickly withdrawn on our observing it. When it a second time appeared, after a long interval, one of the party went to see who on earth was taking such an interest in the internal economy of our dwelling, and was accosted with the well-known English words, "Good night, sir." On inquiring who was there, the answer came back from the darkness, "An Englishman, sir, from Ipswi[illegible]" whereupon the owner of the voice was asked in, and provided with a chair. He proved to be a sailor, who had come out in a Brazilian gunboat from England in 1862; had been in Peru for a time; and latterly on the Amazon, in the employment of a Brazilian living not far from Obidos. He said he had heard that some Englishmen had arrived at this place, and he had come to see them; but not liking to intrude, had been enjoying himself in listening near our window to the sound of his mother tongue. After some conversation and a glass of brandy he took his departure, and we never saw the poor fellow again.

## CHAPTER X.

### EXCURSIONS FROM OBIDOS.

Leave Obidos for Trombetas — Our Crew work badly — The Botanist falls through an Oven — Arrive at Iripixy — Gulls feeding on Flying Ants — Vegetation bordering Lakes on Igapo Land — Our Steersman's Gun falls overboard — Ascend Trombetas to Lake Caypuru — Spreading a New Canoe — Dread of the Evil Eye — Caught in Rainstorm — Return to Obidos — Visit Serra de Escama — Indian Picture-writing — Are joined by the Engineer — Our Steam Launch arrives.

FROM Obidos we made a journey up the Trombetas river to examine some lands on its east bank, lying between the lakes of Iripixy and Caypuru. The agent procured us a large two-masted boat, having a wooden-roofed cabin aft, into which we could crawl, when overtaken by rain. It was manned by a crew of four individuals, two being soldiers obtained from the Commandante of the fort, the third a youth, and the fourth an individual of a certain stamp which is unfortunately too common on the Amazon. He was a "low white" Brazilian, of slight build, unprepossessing appearance, very self-opinionated, and a loafer at heart. His duties were to steer the craft and make himself useful; instead of which he rendered himself, eventually, not only useless but obstructive.

Getting started we paddled close in shore, against the current along the front of the cliffs, until after a

time we passed them and came to an open space called the Colonia, where a good-sized house, with glass windows—a rarity on the Amazon—some ruins, and the standing walls of a large church, alone are left of the edifices of a colony of Portuguese. Of the human beings themselves who inhabited them, only the captain of Portuguese trabalhadors (workmen) remains. Immediately after passing the Colonia we rounded a high wooded bluff, and turned up one of the two channels into which the Trombetas is divided by a long and narrow island.

About half a mile on we landed, late in the evening, at a place where there was a good house a few hundred yards back from the river, surrounded by a low paling and garden, with a row of small trees in front, and where everything was neat and well kept. A wide space of grass land lay between it and the river, dotted here and there with solitary members of the ancient forest that once covered the whole. Upon this grazed a small herd of cattle, which gave a farm-like aspect to the spot. The owner, a Portuguese, was away, but his wife and mother welcomed us, and apportioned to us a room in the house for the night. The moon and a few stars tried their best to shine, whilst we were taking dinner in the open air, at the late hour of 8.30 P.M., but by nine o'clock the clouds had got the better of them, and rain fell, continuing apparently all night; for it was hard at it when we awoke on the following morning.

Continuing our journey at an early hour, as soon as the rain had ceased, we followed a channel between a small island and the one above mentioned: and

eventually came upon the main river, in a part no longer impeded by islands, but where its banks are about half a mile apart. Its water is very turbid, being discoloured by a large volume of Amazon water which flows into it through the Cachiury channel. Portions of the sides of the long island had houses upon them here and there, while but few buildings were to be seen on the low banks of the Trombetas. At the mouth of Lake Tapacuru, which we crawled past early in the afternoon, we saw some cattle feeding. Directly opposite were a few houses, and a little farther up two fasendas, one on either side of the river.

Our men worked very badly, paddling when and as they pleased, and resting as often as they liked. Nothing we could say would incite them to the least exertion. They were fair samples of the working, or rather what ought to be called *resting*, population of the Amazon. With them money is no object, and they only took to the paddles "to oblige the Senhors." The two soldiers, natives of the neighbourhood, were at the time performing their annual service of a month or two in the Obidos garrison; and had it not been for the Commandante's sending them, we should have been unable to procure a crew at all.

Heavy rain falling during the afternoon, we were obliged to crawl into our cabin, and there recline for a lengthened period. At dusk we turned off from the main river into a little creek, in order to get shelter for the night at a house whose whereabouts was known to our steersman. Coming to a landing we found the onward path completely under water,

owing to the river having risen almost to its flood level from recent rains; and we were obliged to wade ashore barefooted for about three hundred yards, finding our way by aid of a very dim moonlight.

Late as it was we found, on arriving, that the inhabitants of the house were sitting out of doors plaiting palm leaves for thatch. There were two men and four women in all, who received us kindly, and gave us permission to remain for the night.

Whilst waiting for dinner, which our servant was busily engaged in cooking, the Botanist sat on the edge of a large baked clay farinha oven to rest. His weight being too much for the structure to bear, it gave way, and he was suddenly precipitated earthward in a most undignified manner, landing right upon a large white dog which had been sleeping beneath; while three bottles that had been reposing on the oven, rolled over and fell heavily upon his prostrate form. Uttering most startling yells, the astonished dog struggled from beneath him, and with surprising agility for an animal in so crushed a condition, shot off into the neighbouring forest, where for a time it howled mournfully. When the Botanist emerged from the bottom of the oven, slightly coated with dusty wood-ashes, we ascertained that he was uninjured. Then it was that the ladies of the place gave way to unbounded merriment, and for a time fairly screamed with laughter. Even the old lady whose oven was thus partially destroyed, seemed to enjoy the scene most thoroughly.

We partook of our dinner at 9.30 P.M., but the natives outdid us in lateness by commencing to cook

theirs at 10 P.M. This was owing to their having obtained some pirarucu from us, and to their having been without animal food for two days in consequence of their montaria from which they fished having been lent to a neighbour.

We all turned in at last for the night in one large room, our hammocks and those of our crew being suspended in a row along one side; while the inhabitants hung theirs along the other. That evening the sky cleared at nine o'clock and so remained till morning, producing the first fine night we had seen since our advent into Obidos.

On arriving at the narrow entrance to Lake Iripixy (pronounced E-re-pe-she), we crossed over to the western side of the river, and landed at the house of a Senhor Vincente, to whom we had a letter from the agent at Obidos. The establishment of this man consisted of a recently-erected dwelling house and shop, situated in a large clearing on the low alluvial land bordering the river. He had lived, he said, for years on the shore of Iripixy, but had been obliged to leave the spot owing to the saüba ants, which had become numerous, destroying everything he planted.

On applying to him for a guide to the forest at the head of the lake, which we were about to visit, he accompanied us back to Iripixy, and, leaving us at his former dwelling, went on in a small montaria to procure a suitable man. By the time he had returned with one, it was too late to do anything, so we made arrangements for the guide to start with us at an early hour on the following morning.

We took up our quarters in the above-mentioned

house, a well-built mud-walled edifice, fronting a fine white sand beach on the western side of the lake. Near by were the dwellings of one or two Tapuyus, who, in spite of the saübas, had some cultivation, and a small plantation of coffee trees.

Farther up the lake was an old deserted house, on the earthen floor of which we saw fresh deer tracks. In front of this, near the edge of a cliff, our attention was attracted to a very large flock of Gaivotas—common grey river gulls—which were wheeling and circling about in a most excited manner, at a distance of some fifteen to twenty yards above the ground. On approaching the spot we were surprised to find that these birds, which we supposed fed exclusively on fish, were in the act of enjoying a meal of male and female winged saübâ ants, as the latter rose, two or three at a time, from holes in the ground.

The ants were quitting their home with the intention of forming other colonies at a distance, and the females were distended with eggs. Each insect emerged fussily from a nest orifice, trimmed its wings with a buzzing sound, and then flew slowly up into the air to meet its doom.

The gulls were not at all disturbed by our presence, but swooped after them over our heads as they rose, catching the insects with great dexterity in their long pointed beaks, with which they made a slight clicking noise, and then uttered low squeaks suggestive of satisfaction. Once, for a short time, a small bluish pigeon-hawk joined in the work of slaughter, acting in a most friendly manner towards the gulls, and not in any way interfering with them, as he swooped about in their

midst procuring his share of the insect feast. An old yellowish kite also wheeled amongst them once or twice, but, not being agile enough to catch much, soon took his departure.

Three Qu'-est-que-ce-dits and two Blue Sackies, who made catches at a lower elevation than the gulls, soon became so gorged that they had to seek tree branches and rest, eyeing most wistfully the waste of such delicious food, which they could no longer enjoy. For hours the gulls could be seen wheeling over the spot, until night put an end to their orgie. It is very evident that hardly an ant escaped slaughter during the day, but if they continued to emerge from their nests at night, they must have been able to get safely away.

Iripixy is a pretty sheet of black water, some three miles in length by half a mile in width, with numerous arms and sand beaches, and with low wooded hills rising from its northern edge. A single house and plantation here and there along its banks add a little life to the quiet scene.

Conducted by our guide we arrived at the head of the lake, and entered a large creek, where the land was flooded far away amongst the trees on either side. The vegetation on these lands, fringing black-water lakes and rivers, that for some months of the year lie under water, is peculiar, consisting of soft-wooded trees of various kinds, amongst which the members of a few species of dwarf monkey-pots are very numerous. The brown curiously-shaped nut-cases on these are quite a pleasing feature in the scene, while amongst them the red tassel-shaped blossoms of another kind

of tree add effective touches of colouring to the various shades of sombre green.

The difficulties attending the passage of a boat through such places are greatly enhanced by the masses of climbing razor grass, which hang in festoons from every branch, and which when brushed against are capable of inflicting very painful cuts.

With some trouble our boat was got a short way up the creek to a place where dry ground came to its edge. There we landed, and traversed the forest along the boundary of the Company's extensive property, which, having been opened up some years before, formed a rough pathway by which we were enabled to proceed, without having to cut our way as hitherto. It was late in the afternoon before we got back to our boat, everyone smarting more or less from the stings of some marabuntas, which had viciously and unjustly attacked us when harmlessly passing their nest on our return.

Reaching the open lake we were paddling down its southern side, when the steersman espied a pigeon sitting in a low tree top. He took aim at it with a gun he had borrowed from Senhor Vincente, while the crew watched the result with anxiety. We heard the gun snap without the charge exploding, and saw the pigeon fly. As Raimundo Gato—Raymond Cat—for such was our steersman's name, was sitting in the stern, he was hidden from our view, and his movements were concealed from us; but presently we heard a tremendous explosion in his vicinity, followed by dead silence. We stood up, looking over the cabin to learn the cause, and there saw—not a blackened corpse, as we

expected—but only Mr. Gato looking down foolishly at his empty hands. Suddenly he recovered from his bewildered condition, and springing hastily to his feet, proclaimed that the gun had fallen overboard. The fact was that in trying to prime it the charge had exploded, and the recoil thus produced had carried it out of his hands into the depths of the lake. We all felt that we had had a narrow escape, and were thankful that we were not then suffering from the effects of stray pellets of shot in our backs.

As the gun was a borrowed one he did not seem to feel its loss at all, or think it necessary to take any steps towards its recovery. Being shamed into taking some action in the matter, he tried to induce the soldiers to join him in diving for it, but they scornfully refused to risk their lives to serve him. They said that the terrible "Sucuruju," or water-boa, would seize anyone attempting to dive in the lake. We asked William if he thought he could recover the missing article, as it was the property of Senhor Vincente, who had been civil and obliging to us; and he expressed his willingness to try. His first effort proved unsuccessful, but on his second appearance at the surface he held the gun safely in his hand, having brought it up from a depth of twelve feet.

Sailing down the lake we reached our quarters of the previous night, where we again sought shelter, and were fortunate in having such a good roof above us, as it rained heavily.

Leaving the lake we continued up the Trombetas, along the base of the red cliffs, which extend from the Iripixy mouth for a few miles northward, and pursued

our journey to the end of a long wooded island; from near which the view across the Trombetas is very fine, embracing, as it does, the full width of the river, and the hills of Sapukia on the opposite side. Following the wide channel between the main and the island, we passed a low-lying swampy tract backed by high land, and rounding a point opposite the end of the island entered a large and spacious bay, at the mouth of Lake Caypuru.

At the house of a negro, on a point, we obtained shelter for the night, and next morning crossed over to the dwelling of a man named Calistro, in order to get him to accompany us as guide to the head of the lake. He promised to come if we would wait for a short time, until he had finished spreading a canoe, which he was making from a hollowed-out log. We asked to be allowed to see the process, but our request was at first refused. Upon asking why such a slight favour was not granted, he said that as the operation was a delicate one, the liability of the log's splitting was very great, especially under the influence of some people's glance; and he could not tell whether any of our party possessed an evil eye or not. He went to the place where the embryonic canoe was in process of construction, to ask one of his assistants if he minded our seeing the operation, and returned to say that we could not be allowed to do so. After some further consultation it became evident that they feared it would be more unlucky for our eyes to be refused a sight of the process than to be fixed upon the work; for in the end they actually solicited our presence at the perform-

ance. We in our turn then refused to go, saying, that if we went and the canoe unfortunately split, they would undoubtedly blame us for the mishap. To this they replied, "If it is going to split, let it split; but in any case you must now come and look on."

We therefore gladly adjourned to the spot, a delightfully cool one beneath a huge Tonkin bean tree, whose branches spread out over a great extent of surface, the end of one reaching a distance of nineteen paces from the stem. There we saw the narrow hollowed log, shaped into a prow at one end and stern at the other, and very trough-like in form, reposing bottom upwards upon two crossed poles driven into the ground. A fire of palm leaves, the full length of the boat, blazed fiercely upon the sand beneath. As soon as the wood had been rendered sufficiently pliant, they turned the canoe up, and with large semi-split logs, resembling old-fashioned wooden clothes' pins, placed at three spots along each side, they gradually pryed it open, giving it the form of an ordinary montaria. Making the ends of the clothes' pins fast by ropes to the ground, they left it to cool and harden in that position. Fortunately none of us possessed the evil or unlucky eye, as it turned out, and therefore the canoe did not split.

The trying moment being over, Calistro became cheerful, and soon prepared himself to start with us. We got off in two small montarias, leaving our large boat at his place. One of these was so deeply laden, from carrying four persons, that its sides were not an inch above water. No incidents attended our journey up, or through the forest, except that the

Botanist discovered his first new palm upon that occasion.

In the afternoon we heard thunder rumbling in the distance, and saw every prospect of a storm coming on, therefore entering our boats at the head of the lake, we set out for a hard pull, in order to try and get to Calistro's before the rain came on, in which we were unsuccessful. The canoe with the Botanist in it, paddled by our soldiers, ran a race with the other, pulled by William and Calistro, and, getting in front, nearly swamped the latter with its wash. The men had taken off their hats, and we observed that although their hair was quite wet, yet portions of it stood straight on end, and by its tendency to separate, showed that the phenomenon was evidently owing to the presence of electricity in the atmosphere.

By this time the rain had reached us, the inky clouds above rendering the sky as dark as night; and the strong gusts of wind, accompanying the storm, so ruffled the bosom of the lake, that our craft could no longer weather the short chopping waves. We therefore pulled madly to the shore—our boat sinking just as we gained the beach—and rushing up to an untenanted house in a soaking condition, took shelter from the driving storm.

After the war of the elements had ceased, we raised the canoe, freed it from water, and went on to Calistro's; from which we crossed over to the house on the point in our own boat.

We had got thoroughly disgusted by this time with our lazy, worthless crew, and the foolish steersman; and anticipated with pleasure an immediate return to

Obidos, which would free us from their company. One of the soldiers named Antonio, the steersman, and the youth Juvencio, were quite mutinous; while Sivrian, the other soldier, would have nothing to do with them, but remained faithful to us.

Hoisting sail on the following morning, we commenced our return journey with a leading wind as far as the Sapukia mouth, where it failed us. From that on we sailed at times, and paddled at others, just as the wind suited, but more frequently only drifted along with the current; until a little before dusk we came to a huge flotilla of grass islands, seemingly at a stand-still, the wind keeping them against the current. Just then a strong breeze reached us, which came from a black storm that for some time had been gathering to the northward, and, being fair, our crew hoisted the foresail. They were also going to set the large mainsail, but we prevented them, knowing what fearful blasts often precede and accompany these rain storms; besides, we had not a particle of ballast in our boat. Presently the water up river behind us became lashed into seething foam, and the approaching storm could be heard singing through the tree-tops as it came along. It soon reached us, coming down with such force that the foreboom bent like a whip, and the sail was nearly carried away. Off we scudded rapidly with the gale abeam, and soon entered the long narrow channel between the two islands in the Trombetas' mouth, where the wind left us, being succeeded by heavy rain. We stopped at a landing place near a house on the island till the rain ceased, and there partook of our frugal repast of biscuit and salt fish.

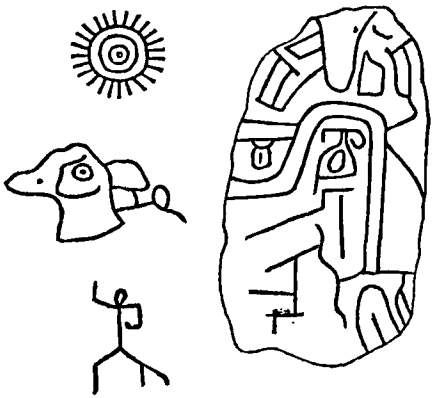
The moon rose, and was shining pretty fairly by the time we entered the Amazon. Getting into the strong current, with a light wind on our larboard bow, we proceeded down stream, arriving at Obidos at 11 P.M. Our contemptible steersman leaped ashore as the boat's bow grated on the beach and disappeared in the darkness. The streets of the little town were dark, silent, and deserted, as we carried our traps through them to our house, where we made ourselves comfortable for the night.

A few days after our return, in company with our friend Dr. B——, the Government botanist from Rio de Janeiro, who at the time was making collections on the Amazon, we visited the isolated hill called Serra de Escama, which lies close to the town, in order to view the Indian picture-writing on some rocks upon its summit. Following a good cart-road until it terminated at a quarry, some distance on the hill's southern side, we struck off up an open grassy slope to its clear top, 300 feet above the river, where amongst a few scattered trees lay large blocks of coarse, ferruginous sandstone, upon which were depicted numerous inscriptions of scroll-work, and, in one or two instances, rude representations of birds' heads. These forms were very similar to those seen in British Guiana, but instead of being cut in very hard rock were deeply grooved in soft ones, evidently because there were no harder rocks in the neighbourhood. One block showed plainly that a large portion of it had cracked, and subsided to a slightly lower level, since the writing was made upon it; while a large basin-shaped cavity, formed by subsequent

weathering, attests the great antiquity of the sculpturing.

The view from the spot was very fine, the distant line of faint blue hills behind Santarem being plainly visible; while in another direction we looked down upon the Amazon and town of Obidos.

One finely-sculptured rock, figured below, we coveted greatly, and saw no reason why it could not be removed, for the purpose of being conveyed to the British Museum. On returning to the town we made an agreement with an individual to bring it down for us to the water's edge; but, as he never tried to perform his part of the contract, it still remains a dead letter, and the stone reposes where nature placed it.



INDIAN PICTURE-WRITING.

At this stage of our journeyings it was necessary that we should have a small steamer, or good-sized launch, at our disposal, to enable us to perform our work in a satisfactory manner. One of the latter kind had been chartered for us by Captain Crozier, R.N.,

the Superintendent of the Company in Pará, and we had therefore to remain at Obidos until it arrived.

Early in the morning on the 22nd of February, or rather during what is usually called the small hours of the night, we were aroused by a terrific knocking at our door. Turning out, we lit our veteran paraffin lamp, and undid the bolt, when there entered on the threshold, before our blinking eyes, the manly and welcome forms of Captain Talisman and the Engineer. From the latter we learned that his pickets having been driven in by continual rains, he had been obliged to give up a portion of his work, and come on to join us; and that the steam launch, for which we had been so long looking, had been towed up from Pará by the steamer in which he had come as a passenger.

This was indeed most welcome news to men who had but recently suffered from the slow motions of a heavy montaria, manned by the laziest wretches in the world, and steered by the redoubtable Raimundo Gato. It is not yet a recorded fact in history, but there is every reason to believe, that when this good news was announced, the Obidosian members of the usually staid Geological Commission, performed an Indian war dance around the bodies of their comrade and the worthy captain.

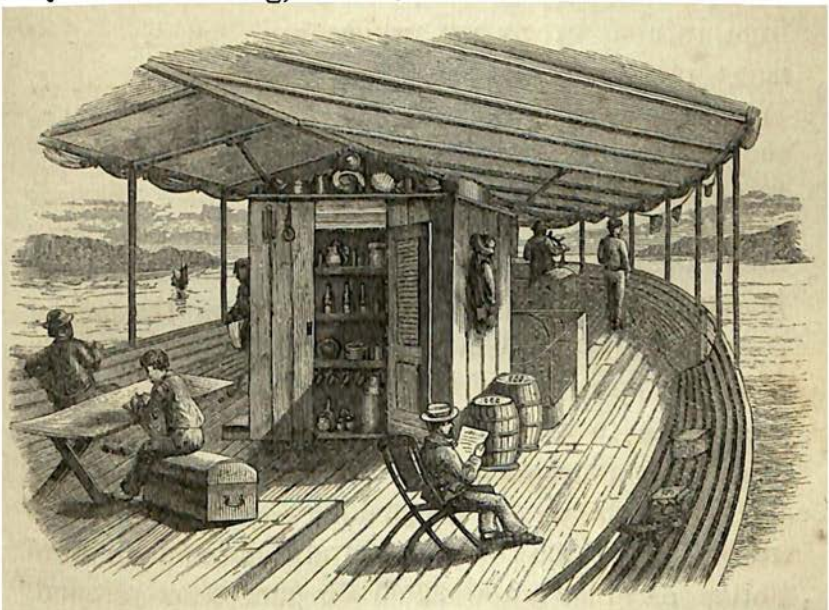
## CHAPTER XI.

### ON THE TROMBETAS.

The 'Beija Flor'—Captain and Crew—Death of José—Start for the Trombetas—Scenery of the River—Night on board the Launch—Entrapped in a *Cul-de-sac*—S. Antonio—Lake Arapecu—Brazil Nuts—Lake Jukiri—The Isle of Diamonds—Lake Tapajem—Two poor old Negroes—The Launch aground—The Cataract—Runaway Slaves—Return—Scientific Rivalry—Palms—Adventure with a Tiger—Lake Sapukia—Obidos again.

A NEW era had now dawned upon the Geological Commission. Hitherto we had been compelled to work from certain fixed head-quarters, making from thence various excursions into the surrounding district, as far as the length of our tether would allow; but continually falling back upon our centre as stress of weather, want of provisions, failure of means of locomotion, or other untoward circumstances necessitated. Henceforth, however, we were to carry our head-quarters with us, and thus be free to lengthen our journey to an almost indefinite extent. It may be imagined therefore with what delight the arrival of the 'Beija Flor' upon the scene was hailed. There was poetry in her very name—the Kiss Flower, that is to say, in more prosaic English, the Humming Bird—a sobriquet which may be taken as suggesting, not inaptly, the manner in which she flitted about from place to place while under the control of the Commission.

The 'Beija Flor' was of no ordinary build; she had been designed and constructed in France, but the artist would appear to have taken for his model a turtle from the Amazon, which in shape she greatly resembled. Her deck was a perfect ellipse, shaded by an iron awning, or roof, of the same form. A little



DECK OF 'BEIJA FLOR.'

high-pressure engine, placed in the centre of the ship, worked the screw which propelled her, and was divided off from the stern portion by a large cupboard, serving the Commission both as a pantry and as a screen from the heat and noise of boiler and machinery. This after part of the launch was furnished with a table and easy chairs, and was devoted to the exclusive use of the three members of the Commission and their Interpreter. The captain, engineer, and crew occupied the bow, and on fine

nights some of them slept on the top of the roof. Our craft was gaily painted throughout in red and white; but the most singular arrangement was that a ledge, about eighteen inches wide, made the entire circuit of her on the outside of the bulwarks. This was probably intended by the builder to keep her from turning over when caught by a squall, but in many other ways it proved of great value to us. When the deck was blocked by stacks of wood for the engine fire, a ready communication fore and aft was still kept open by means of this projecting flange; and the whole party could step from it simultaneously into a boat alongside, thus saving the time that would be spent in disembarking one by one through a narrow gangway. The steering wheel was in the bow —an arrangement which enabled the man who guided the launch to keep a good look-out ahead for snags, floating logs, and other impediments to navigation.

The captain of the 'Beija Flor'—one of the most trusty pilots of the Company—was of mixed Indian and Portuguese blood, and acted his part in an efficient, though unassuming manner. He had a thoroughly hearty laugh, which it was pleasant to evoke by getting up some trifling joke, of which he seldom failed to see the point. The crew were mostly Tapuyus, and had their teeth filed into triangles like those of a saw, a fashion which added a touch of wildness to their smiles. Were we writing a romance, instead of a veritable story, it would not be easy to find a more high-sounding set of names to bestow upon our heroes than those that actually belonged to the crew of the 'Beija Flor.' José Mamedé Gonçalves appeared first on the list,

as captain; then followed Domingos S. Ramão—engineer; Raimundo R. Figueiredo—fireman; Raimundo Dias do Silva and Ambrosio A. dos Santos—sailors; and Serelho Alves de Mello—boy. After these, our own patronymics seemed exceedingly tame and commonplace!

William still accompanied us in the capacity of cook and general servant, but as he was overtasked, we purposed to retain the services of our Portuguese sailor Antonio. To our surprise, however, he developed a sudden attachment to his comrade José—quite unexpected after the bickerings and scornful looks that had always been passing between them—and declared that he would go no farther unless he might have his company. José was quite willing to proceed, but was evidently not in a fit condition. None of us, however, suspected that he was within a few days of his end, but such was the case. He went with Antonio as a passenger in the next steamer to Pará, and died soon after reaching it—the disease brought on by exposure and toil during the stormy expedition to the Tapajos having never loosed its hold upon him.

Our first voyage in the 'Beija Flor' was to be up the Trombetas river, as far as the launch would take us—that is to say, to the first falls. Our friend Dr. B——, the Brazilian botanist, had readily caught at a hint that he might accompany us if he were willing to put up with very limited accommodation, and was on the beach with his hammock, portfolio, and other baggage at the time appointed for starting on the morning of February the 24th. His servant, a young

Indian soldier of the name of Violante, assisted in stowing the various articles on board, and was pressed into our service to make the trip with us and give William all the help he could.

Heavy tropical rain had been falling all the previous night, but was just ceasing when the 'Beija Flor' raised her anchor and puffed away from Obidos. A spell of fine weather succeeded, which lasted, with trifling exceptions, through the whole eleven days occupied by this expedition; this pleasant change made our first trip in the new launch very agreeable. The scenery of the Trombetas appeared to us somewhat monotonous at the time, on account of the unbroken forest on its banks; but, when subsequently recalled and compared with that of other tributaries of the Amazon, it left quite a different impression. The occasional glimpses of hills of respectable elevation; the changes from straight reaches to more picturesque windings, and from narrow channels to wider expanses with islands; and the retired lakes so frequent in the vicinity of the river, all combined to make it a river of fairly diversified beauty and interest. We are not prepared to join in the ardent raptures with which a Brazilian writer—Senhor Penna of Pará—dwells upon its various features; as, for instance, when he speaks of some gentle undulations, certainly not two hundred feet high, as "the magnificent Cuminá mountains"; but we cheerfully allow that in many respects the Trombetas is a very charming stream.

During the progress of our voyage on this, as on all the other rivers subsequently explored, we were

engaged in making a geographical map of our course, on a scale sufficiently large to be used for purposes of navigation. At night the work of the day was corrected, and our exact position ascertained by observations of the stars for latitude and longitude. The Trombetas, in the part laid down by us, flows in an east-south-easterly direction—not from north to south nearly, as shown on most maps.

A steam of six hours, on the first day, took us easily over that portion connected with such toilsome and tiresome experiences in our previous expedition with a boat and inefficient crew, up the river to the Company's territory. After landing at one or two parts of the property, we turned into Parawacu Igaripé, and there dropped anchor before a cottage, having completed a run of thirty-five miles.

It had been our purpose to ask leave to hang our hammocks in the house, fearing that we should be much cramped on board; but when the time for retiring arrived, it was thought best to make some experiments with the view of determining exactly what amount of space the 'Beija Flor' afforded, for we knew that generally it would be necessary for all to find sleeping room in her somehow. The hammocks were to be suspended from the iron rods supporting the awning, and, to make space for them, the chairs and table had to be packed out of the way. Dr. B—— promptly fixed upon a site for himself where no one was likely to annoy him, and stowed himself away in a surprisingly limited area. The four members of the Commission found the remaining room more ample than they had anticipated; and all difficulty was got

over by hanging two hammocks straight across the deck, at some little distance apart, and placing the two others in the intervening space, somewhat in the shape of the letter X. Undoubtedly it was rather a tight fit, but there was, at any rate, a plentiful supply of fresh air, the deck being quite open, except for the awning. We slept, in fact, in full view of forest, sky, and water, unless the night happened to be stormy, when a curtain could be let down on the exposed side as a shelter from wind and rain. In a very short time we became accustomed to this close packing; and when next the Commission occupied a house, it was unanimously agreed that it was less pleasant to spend the night shut up between walls than on the unenclosed deck of the 'Beija Flor.'

Some hours were spent, on the morning of the second day up river, in exploring Parawacu Igaripé by means of our montaria. The owner of the house before which we had anchored for the night piloted us along the intricate maze of low-arched passages between the trees and bushes—many of which were covered with dense masses of the dangerous *piririca*, or razor grass—and back again to our launch. It was pleasant on resuming our voyage to leave the narrow Igaripé with its limited views, and emerge upon the main river, which here widens out considerably, and presents the appearance represented in the accompanying engraving.

A little farther on, the Trombetas appeared to be divided by a string of islands along the centre, and, as far as we could tell, it was a matter of perfect indifference whether we took the channel on the left or the

*W. Lidstone, del.*

THE TROMBETAS FROM NEAR MOUTH OF LAKE CAYPURU.

one on the right. We chose the latter, and steamed on for an hour, little suspecting that the islands had given place to a peninsula or long wooded spit, and that we had really got into a backwater, running parallel with the main river for a distance of twelve miles; from which there was no exit except at the head of the estuary through a shallow ditch, available only for boats in the wet season. As soon as this discovery was made, orders were given to put about, and the 'Beija Flor' skirted the narrow peninsula, making several efforts to push through, where it was submerged by the rising floods, before she finally succeeded in getting again into the main river.

This extensive cul-de-sac is known as Lake Curupirá, and there is a similar though smaller one on the opposite side of the Trombetas at this part, called Lake Achipica. Seeing a house standing on high ground at the entrance to the latter, we stood across for it; and our montaria took us under a long archway of bushes, through beds of wild rice to the landing place. From the house we had a fine view over this singular region, embracing a wide extent of the Trombetas flowing between its two lagoons, and the long separating strips of forest. The name of this place we were told was S. Antonio, and as such it was set down on our map; but when we subsequently landed at house after house on this and other rivers, and were informed in answer to our invariable inquiry, that each was called S. Antonio, we saw that little of distinctiveness attached to the title. No other saint on the calendar is nearly as popular as this much enduring old monk, perhaps because his peculiar

virtues appear quite miraculous and altogether unattainable to the native mind.

Before leaving this first S. Antonio in the long succession, we took altitudes of the sun for longitude, and then resumed our journey up river; but only pursued it as far, that day, as the mouth of an important tributary called the Cuminá, where the 'Beija Flor' dropped anchor before a house built on the margin of a small stream with an inch or two of water in it, which we were told was the head of Lake Curupirá before referred to. On the opposite side of the river, the so-called "magnificent Cuminá mountains" were in full view, but did not, as already intimated, overawe and oppress the spirits by a display of sky-piercing summits and beetling cliffs.

From this point onward, the Trombetas became for a time more winding, and passed through the region which chiefly supplies the remainder of the world with *Castanhas*, or Brazil-nuts. All the houses along the banks had great heaps of them, in their hard outer cases, piled up in front or alongside, looking like heaps of cannon balls, and suggesting the idea that the different places were prepared for a siege. In the afternoon Lake Arapecu was reached, a fine sheet of water of irregular outline, dotted with numerous islands. Its name is well known as being that of the very nucleus of the Brazil-nut district, and the place to which vessels resort for cargoes of this much-esteemed product. We here turned aside and explored the lake for some distance, stopping finally at a house on a prominent point for the purpose of inquiring for a guide. Close by was a group of fine *Castanheiros*, or

Brazil-nut trees, which had been apparently struck by lightning, in such a manner that one was quite dead, and another had one side torn away.

Behind the house the forest consisted almost entirely of groves of the same timber, and much of the undergrowth had been cleared off to facilitate the picking up of the nuts when they fell, for no attempt is made to gather them. We risked a walk among the stately trunks, where the falling of a nut upon one's head would of course have been fatal; but the day was calm, and the danger therefore very slight. The trees must have been fully one hundred feet high up to the point where they branched, and one hundred and fifty feet to the top. We measured the girth of one of them, and found it to be twenty-three feet above the projecting buttresses that widened out towards the roots to give it additional support. In all directions lay great piles of nuts, and a large shed near the house contained plentiful stores of such as had undergone the toilsome process of being extracted from their hard and tough outer shells. We were told by the owner of the place that a trader lately purchased from the people on this spot 400 arrobas (bushels) of these shelled nuts, which he took to Pará to sell. He paid at the rate of two milreis an arroba, and sold them for ten, clearing more than 300*l.* by the transaction.

We were interested, though at the same time greatly shocked, at this place, by an unfortunate man who approached the 'Beija Flor' in his canoe to beg for money. He was a leper, in the last stage of that loathsome disease, without lips, nose, or fingers of

one hand. Everyone hastened to throw him a few coppers, and entreated him to leave us, lest he should follow up his importunity by stepping on board.

When the launch resumed her journey, she had an additional passenger, for the old Indian who lived at the place we were leaving, and who stated that he knew the river thoroughly up to the falls, had consented to accompany us thither as guide. The day was now so far advanced that, after a run of seven miles from the mouth of Arapecu, we inquired for a convenient anchorage for the night, and the old man pointed out a narrow opening between the trees, which led to a sheet of water of the same character as Lake Arapecu, though of less dimensions. One would never have guessed that it was anything more than the mouth of a little brook; and we quite expected, notwithstanding our guide's assurances, to be soon brought to a stand-still; but after several intricate turns, the water of the lake gleamed before us, and several houses made their appearance scattered along the margin. Before two of these, standing side by side, we dropped anchor, but at considerable distance from the shore, as the captain had been alarmed by some idle tales about the dangerous character of the inhabitants of the Trombetas.

During the evening several canoes came round the 'Beija Flor,' full of Indian men and boys, who clustered upon the projecting ledge, resting their elbows upon the bulwarks, and took a comprehensive survey of ourselves and our belongings. A few questions about their lake set all their tongues going, and strange tales were told of the varied wonders of the

place, which was called, it seems, Lake Jukiri. One said that he knew a place in the forest where there was a quantity of pottery, principally consisting of grotesque imitations of the human form, which might have been the idols of the natives before the introduction of Christianity. We asked him to get us some specimens on the following morning. Another alleged that he knew of an island in the lake called the Isle of Diamonds, because there was a kind of soft clay found on its beach, which, when exposed to heat, became a clear, green stone, so hard that only a diamond could scratch it. We had heard of this before, and even seen some specimens, consequently we engaged this man to show us the place.

Next morning we waited awhile to give these men an opportunity of keeping their engagements, but, as they did not turn up, we went ashore to look for them. The hero of the pottery was now in a different mood; he had lost, he said, the bearings of the spot of which he had spoken, and the images which he had preserved for a time in his house had been broken or lost by his children, who were fond of playing with them. The guide to the Isle of Diamonds had also entirely dropped the confident tone of the previous evening, went on board with seeming reluctance, and then answered our pressing inquiries respecting the direction in which it would be necessary to steer, by exclaiming with naïve simplicity, "Heaven alone knows!" When reminded of his assertions of the previous evening, he pointed to the only island which happened to be in sight, and said he thought that was the one. The 'Beija Flor' was soon alongside it, and

made the entire circuit, but there was no beach in the existing condition of the water level. The trees dipped their branches straight down into the lake in tangled masses, and it was evidently useless to attempt a landing, consequently the guide was at once transferred to his canoe, and progress resumed.

In passing out through the narrow winding channel communicating with the Trombetas, we were struck with the English look of the foliage forming the steep wooded slopes on either hand. It was not difficult to select close resemblances to the elm, oak, ash, and sycamore; and, as it happened, there was an entire absence of palms. Perhaps the scenery appeared all the more homelike on account of the grey, murky sky, which, after a night of rain, was still hanging over the landscape.

Very few houses were seen during this day's voyage along the banks of the river, here more than usually draped and festooned with enormous masses of creeper. In the evening we turned into another lake with an insignificant entrance, called Tapajem, and made for the only house in sight. A canoe, full of Brazil-nuts, was being urged towards the same point by two very aged negroes, who seemed to view us with considerable alarm, and increased their speed to the utmost; but we gradually gained upon them, and arrived off the landing exactly as they touched the shore. Our Interpreter hastened to assure them that we were not dangerous, and asked permission to cut into logs, for the use of the 'Beija Flor,' some of the felled timber which encumbered the clearing around their house. The old men readily assented to this, and their own

feeble services were secured to assist with the task, by the offer of a fair remuneration, whereupon the sound of chopping and splitting wood at once commenced, and resounded across the lake until the twilight had quite faded away.

At night, when we went ashore to take observations of the stars, the two grey-headed negroes were sitting over a brazier, warm as the atmosphere seemed to us, driving away the chills of age by means of some glowing embers. They seemed to live alone, and we wondered what one would do when, in the course of nature, the other died and left him still more lonely—an event which could not be far distant. Their house was only a skeleton, a roof on wooden posts, but the floor, and all their small possessions, looked scrupulously clean. The two hammocks in which they slept at night, were hung side by side, close under the eaves, some ten or twelve feet above the ground, and a rude ladder led up to some horizontal poles serving as a bedroom floor. This arrangement, they told us, had been contrived on account of the tigers. We further learned that they were brothers, had no other relations in the world, as far as they knew, and had run away from slavery many years before.

A delay of some hours had to be made on the following morning to get the wood on board, and we spent the time in exploring the forest and recesses of the lake. At one place a large black monkey objected to our landing, and pelted us with sticks from the tops of the trees. Before noon we were again on our way up river, the two negroes promising to prepare more wood, to be ready for the 'Beija Flor' on our return.

Above Lake Tapajem the Trombetas ceased to wind about, and took to long, straight, wide reaches, at the ends of which we could see the tops of the hills in the vicinity of the falls. A change in the colour of the water, soon after starting, seemed to indicate shallows, and our guide from Arapecu was questioned about it; but he declared that there was sufficient depth for the launch on the side of the river we were keeping. Scarcely had he made this statement before she ran aground; fortunately, however, speed had been reduced, and she was soon got off. He then intimated that he had mistaken the sides, but if we crossed and kept close along by the other bank, we should be safe. This was done, but with no better result, for we were soon stuck fast again near a little island of singularly round shape. It was now clear that the guide did not know the river as well as he had pretended, and the montaria was sent off with a sounding line to find the channel, which, in reality, zigzagged from side to side. Happily the shoals were of soft sand and the 'Beija Flor' sustained no damage.

In the afternoon the guide was asked how far the falls were distant, but he no longer kept up any pretence of being acquainted with the river, and simply answered "I don't know." It appeared certain, however, when we stopped at dusk that they could not be far off; for we had already reached a rocky district rendering it necessary to proceed cautiously, and the surface of the water was covered with lines of bubbles and patches of froth. There was no lake or harbour at hand, but the 'Beija Flor' was simply tied up to the trees under the bank, and as

the stillness of night deepened, the noise of the cataract could be heard with great distinctness.

On the following morning a steam of half an hour brought us within sight, and our montaria set us ashore upon a level platform of hard sandstone rock just in the line of the falls. The scene could scarcely be called imposing, for the descent of the water, measured vertically, is hardly four feet; but the river, here a mile in width, is broken and fretted into foam by numerous rocks and bushy islands in its bed, and with the background of wooded hills—steep though not lofty—it makes up a fairly pleasing picture. Westward the mouth of a large tributary could be seen, entering the Trombetas just above the cataract, which our guide insisted was a branch sent off by the Jamunda. He seems to have followed a common opinion in the district, but one for which there is no foundation.

It was Sunday morning, and we congratulated ourselves upon having reached such a pleasant spot for spending the day. The tents were got out, and a camp formed on a sandy patch adjoining the rocky platform, for the convenience of those who would be engaged in taking altitudes of the stars at night. Everyone then occupied himself according to his tastes, and the hours flew swiftly by. On one of the trees overhanging the river we observed a magnificent flower, which must have been at least a foot in length, and of a rich chocolate colour. It appeared to be the only one on the tree, and it was growing in such a position that it could not be reached. Not far off, a troop of monkeys were gambolling in the branches.

During the day we saw some negroes wading in the water, and easing their boat down the cataract; but when they observed us they went back again. This part of the Trombetas has been, for years, the point for which all the runaway slaves of Brazil were accustomed to make, just as fugitive negroes from the United States used to turn their steps towards Canada. Many had settled on the retired lakes already visited by the 'Beija Flor'—as, for instance, our two old friends on Lake Tapajem—but we were told that more considerable colonies of them were living above the falls. Dr. B—— informed us that an old lady of Santarem gave liberty to her slaves—120 in number—on the condition that they should surrender all their children to her sons, as they became old enough for service. But the bargain was never carried out, and the lady learned what it was to be herself "sold," for the enfranchised slaves all fled to this river, and took good care not to show themselves in the neighbourhood of Santarem again.

Besides slaves, there are many desperate characters —such as soldiers who have misbehaved, and murderers fleeing from justice—concealed in snug hiding places near the river. The Brazilian government formerly sent occasional expeditions against them, but effected little, as the fugitives easily eluded their pursuers in the trackless forest: since slavery has been doomed, they have been left alone. It was no doubt the remembrance of these attempts to recapture them, and the fear that the 'Beija Flor' might be a small gunboat, that accounted for the scarcity of young able-bodied negroes at the houses at which we

touched. Hardly any were to be seen, and no doubt they were hiding until we had passed on. Even the aged couple at Tapajem had disappeared, when we visited their quarters on our return journey punctually at the time we had mentioned; and as they had promised to prepare more wood for us, their absence was a disappointment.

On Monday, March 2nd, we turned about, and commenced the descent of the Trombetas. It would have been easy, had we kept going continuously, to have reached Obidos with the help of the current, in half the time we had taken on the upward voyage; but several points had been marked upon our map, at which it was judged desirable to land, for the purpose of examining the geology, botany and physical features of the place. In doing this, the up and down journeys were made of equal length.

The cliff sections upon the greater portion of the Trombetas disclose the usual deposits of red clay and sand, seen everywhere in the Amazon valley; while high up river near the fall, horizontally bedded black shale is met with, succeeded by sandstone, which in appearance greatly resembles that of Ererê. The rock at the fall itself is composed of thin bedded whitish quartzose sandstone, dipping in a S.S.E. direction at a gentle angle. It contains no fossil shells, but has undoubted worm tracks and burrows, with abundant ripple marks.

Very amusing was it to the remainder of the party to witness the scientific rivalry of the two botanical gentlemen, whenever there was an opportunity of ranging about the forest. Dr. B——, notwithstand-

ing the patient way in which he had settled himself down in Obidos, was possessed of energy and ardour almost portentous, when he once got to work. He was usually the foremost in jumping ashore, and drawing aside the first native who chanced to make his appearance. He would seat himself upon a log or other convenient perch, and proceed to note down in his pocket book whatever answers he could obtain to his numerous questions, fixing the unfortunate man to the spot all the time by the earnest way in which he eyed him through his gold-rimmed spectacles. After everyone else had come to the conclusion that the information obtained in this way was wholly untrustworthy, his confidence remained unshaken, and it was impossible to help thinking of Mr. Pickwick and his unfortunate note book, at the commencement of the travels of the Club.

Both the botanists were especially interested in the subject of palms, and more particularly in the discovery of new species. There was quite a scramble for the first and best specimens, and for the honour of preparing the first description. When one gentleman was fortunate enough, in the course of his rambles, to meet with an undoubtedly new variety, the other, who had been less lucky, would exhibit all the marks of extreme depression; but, on the following day, the turning of the whirligig of fortune would elevate the one who had been cast down, and rob the other of his high spirits. On one occasion the two botanists went off together, and were so much interested in their scientific pursuits, that they entirely lost their marks and bearings, and wandered about the forest in a com-

pletely bewildered state. Happily they came out, after a time, upon the margin of the river, but not before they had experienced a considerable scare. One hears much on the Amazon and its tributaries of people who have gone off into the forest and never returned, presumably because they have lost their way, and these stories naturally put one into a state of nervous excitement directly one gets at all in doubt about the points of the compass.

The net result of the labours of the two gentlemen in the matter of palms was the discovery of three new species in this short expedition. Some genera of palms, doubtless, were very much like others to an untrained eye; but the difference between most can usually be observed at a glance, even by unscientific persons, so varied are these graceful ornaments of the tropical forest, which the untravelled often imagine to be all one pattern. Every odd corner of the 'Beija Flor' got filled up in time with the leaves, stems, fruit, and spadices of palms, which were tolerated as cheerfully as possible in the interests of science, but it must be confessed they were, in many respects, a very undesirable cargo. Several of them were formidably armed with long prickles of amazing sharpness, rendering contact with them exceedingly disagreeable, if not dangerous. It is all very well for him to "bear the palm who deserves it," but let him be careful how he brandishes his victorious symbol if it happen to be one of the prickly sort!

Very little of interest occurred during the return trip; but one morning there was considerable excitement for a time, consequent upon the announcement

that a tiger was swimming across the Trombetas, just in advance of us. All the guns were eagerly seized, but there was not time to reload them with heavier shot. The 'Beija Flor' was put to her best speed, and everyone crowded forward to the bow, gazing fixedly at the noble beast gallantly breasting the current of the river, here rather more than half a mile in width. No member of the party was more excited than Dr. B——, whose stock of "paciencia" on this occasion fell so far short of the usual Brazilian standard, that he discharged his gun long before we had got within range, making the jaguar quicken its pace at the sound of the report. The steerer of the launch now turned her head towards the same point of the bank as that for which the animal was swimming; there was a simultaneous discharge of guns; the tiger gave a wild leap out of the water, and fell back again with a mighty splash. Hit on the head, with small shot only, its wounds were not serious, and a few tremendous strokes brought it to the margin of the forest. The wall of creepers divided, there was a crashing of branches, and the tiger disappeared where it was hopeless to attempt to follow it, not many yards from the bow of the 'Beija Flor.'

At one place at which we landed, the people were manufacturing planks out of large felled trees, and their toilsome and wasteful method of procedure struck us much. Each tree yielded only one plank, the remainder of the trunk being slowly chopped away piecemeal in order to obtain it.

Several lakes, which had not been explored on the

upward journey were visited on our way back; and one considerable detour was made. Opposite the Company's territory a channel enters the Trombetas, flowing with a strong eastward current, and pours into it a large volume of water, sent off by the Amazon and Jamunda. It is known as the Sapukia channel, and is of considerable importance, inasmuch as it flows through a large tract of alluvial land, free from forest and therefore suitable for cattle farms. We wished to have an opportunity of noting the main features of the district, and turned aside here for the purpose. After the 'Beija Flor' had advanced against the current nearly four miles, and had passed about a dozen farms, we came to an opening on our right which led us into a noble lake, called Sapukia like the channel. On the north bank were some fine bold hills, known as the Cunury mountains, the highest we had seen in the vicinity of the Trombetas, and probably reaching four hundred feet. A landing was effected at one of the houses surrounded by a coffee plantation, at the base of the loftiest hill, and an attempt made to climb to the summit; but this was frustrated by heavy showers. Close to the house stood a fine large tree, very much like a Castanheiro, to which it is closely allied, bearing a great pot-like fruit, enclosing numbers of small nuts, which are delicious eating. Unfortunately, however, it is difficult to obtain them, for when ripe the lid of the pot drops out, and all the contents are scattered upon the ground, to be caught up and eaten at once by wild animals, who are quite as fond of them as human beings seem to be. This is the Sapukia,

and, on account of the great quantity growing upon its shores, the lake derives its name from it, but in Demerara it is known as the monkey-pot tree.

At this point the noble expanse of water was about four miles wide, and stretched away westward to a water horizon, so that it was impossible to guess its length. All the northern shore appeared to be wooded, but the southern was open grass land, quite flat, and studded with farms and cattle. This district supplies beef to many of the towns higher up the Amazon, including Manaos.

From Lake Sapukia we returned direct to Obidos, and cast anchor in our old moorings off the fort, after an extremely agreeable excursion, occupying eleven days, and extending over more than three hundred miles. The sun was setting, and we were seated at dinner as we thus happily brought our voyage to a close. Upon the beach strolled the commandant of the fortress, who, recognizing Dr. B—— who was greeting him with friendly signals, put off in his boat, and honoured the Commission by joining us at coffee, and congratulating us upon our safe return to the important town of Obidos.

# CHAPTER XII.

## ON THE TAPAJOS.

Journey to Santarem — Unfailing Topic of Conversation — Rocked on the Waves — Itapauama — A Scare — Aveiros — Scenery of Tapajos — Beds — Uricurituba — A Strange Character — Itaituba — Purchase of a Pig — Maranhãozinho Cataract — A New Pest — Tattooing — Fasendas — Geology — Sugar Plantations — A Fish Pond — Haunted — Festal Dinner — Pignel and Boim — Severe Storm — Return to Santarem — Excursion up the Ayaya — Network of Channels — News from Home.

Two expeditions had already been made by different members of the Commission up the Tapajos, but neither of these trips had extended much beyond fifty miles above Santarem, whereas this noble tributary is navigable for a distance of nearly 160 miles beyond the farthest point reached on either occasion. Our instructions required us to explore the whole course of the river below its falls, and by the help of the 'Beija Flor' this could be easily accomplished. Plainly it was desirable to undertake it before advancing farther up the Amazon, and this trip was therefore the next upon the programme.

After a stay of only two days—one of which was a Sunday—at Obidos, the 'Beija Flor' weighed anchor, and steamed down river to Santarem. The high wind, meeting the strong current, raised large waves which, striking our bow, flung masses of water quite over our awning; but nothing daunted by this, the little launch kept out in the full swing of the stream, and by its aid

completed the journey in the short space of nine and a half hours.

We could not fail to notice, on our arrival, the change in the appearance of things that had taken place during the short interval of our absence, through the rising of the river towards its flood level. Where long sloping beaches had been in our remembrance, there was nothing now but a waste of water reaching quite into the back yards of the row of houses nearest the river. The streets of the familiar city, however, presented their usual respectably quiet appearance as we passed along them that evening on our way to visit former friends. Dr. S—— was at his country house, but we spent some time chatting with Mr. C——, of the South American Missionary Society, who was still occupying the room in which we had been for a short period lodged. This gentleman is of such a genial disposition that, should he ever see our narrative, he will no doubt excuse our mentioning that one slight circumstance in connection with this interview formed a topic of conversation, whenever other matter failed, as long as the Commission remained together. In one corner of the room stood several boxes of singular shape, being only a few inches wide and deep, but several yards in length, and marked S. A. M. S.—the initials of the mission. Curiosity is certainly an essential part of human nature, and it is not therefore surprising that, on the way back to the launch, some one started the query—what could possibly be in those boxes. So great was the variety and incongruity of the guesses that the question inevitably cropped up again in a dull hour.

Few people can understand how thoroughly threadbare all subjects of social intercourse become, after some months, in a party such as ours, always together night and day, and engaged in the same pursuits. Often it happened that a lengthened silence settled down upon the little group, which became quite oppressive; but by degrees it was seen that the most successful method of breaking the spell was for some one to throw out, in a promiscuous manner, the fruitful inquiry, "I wonder what Mr. C—— keeps in those boxes?" The question seldom failed to effect the desired purpose.

At eight o'clock on the following morning, we started for our trip up the Tapajos with the usual fair breeze for those ascending the river. The 'Beija Flor' sped along, and easily passed in one day all the scenes of our former labours and voyagings: crossed the pleasing bays above Santarem; turned the great right-angled bend of Cururu point; gave us a glimpse of the harbour and village of Alter do Chão, backed by its remarkable hill; doubled Cajetuba cape; and, still speeding onward left in the rear Jaguarary, the farthest point previously reached by us. But by this time a cloudy twilight was setting rapidly in, and it was necessary to select moorings for the night.

Trovoados of the usual character had been flying about all day, though none had happened to burst upon us; but they had left a ground swell, from which it appeared to be desirable to seek some shelter. With this object, the 'Beija Flor' turned into the mouth of a little inlet—the mouth of Pakia-

tuba Igaripé—and pushed up it until stopped by bushes growing in the water. Here the waves were less high than in the open river, but still had roll enough to give the launch a considerable rocking. It was usual, however, for the Tapajos to settle down into smoothness as the night set in, and hoping that it would follow this very desirable precedent, we contented ourselves with this little haven, in spite of the insufficiency of its shelter. Former experiences ought, perhaps, to have convinced us that with this capricious river "it is always the unforeseen that happens"; at any rate it so proved on this occasion, for the swell of the waves rather increased than diminished, and rendered our evening somewhat uncomfortable. When the hour for retiring arrived, hammocks were slung as usual, but no sooner had we got into them than they became pendulums with rapidly increasing oscillations, and everyone bumped against his neighbour, as well as against such fixed parts of the launch as happened to be in his vicinity, in a manner that would have been highly ridiculous and amusing had it not also been considerably annoying. There was a general turn-out, and arranging of stay lines, for the reduction of the motion to a minimum; but, with all contrivances, our rest that night was not very satisfactory.

The chief feature of our voyage on the following day was the range of steep wooded hills, broken here and there into cliffs and precipices of red consolidated sands, which stretched along the eastern shore of the river for a distance of about twenty miles. The harmony of colour between the brilliant red and dark green, the abrupt irregular outline of the hills, and

*W. Lidstone, del.*

THE TAPAJOS FROM AVEIROS.

the numerous palm-thatched cottages nestling in the hollows, gave a charmingly picturesque appearance to this line of coast. Perhaps the prettiest bit of all was that described so vividly by Mr. Bates in his interesting work, 'The Naturalist on the Amazon.' Here a large outstanding rock gives shelter and a name to the little bay of Itapauama, in which a single house is snugly ensconced.

At this place we landed, but the owner, who was an old man, did not welcome us with much warmth. He appeared in fact to be exceedingly apprehensive respecting the object of our visit, and trembled from head to foot. It happened that the Botanist was anxious to obtain a specimen of the plant known as *Timbo*, used for poisoning fish; and as it was said to flourish well in this district, he was inquiring for it at all the points at which we touched. Now, it seems that the cultivation of this shrub is prohibited by a recent law, and the old man was apparently confirmed by Mr. Trail's queries in his fears that the purpose of our visit might be hostile, for he trembled still more, as he assured us, with somewhat too much of protestation, that he had not any of the plant. A pathway led up from the house along the crest of a narrow ridge, which sloped steeply to a valley on either hand, and conducted us to the level of the table-land where we saw a considerable field of it flourishing luxuriantly; but of course we did not inquire who the owner might be, or mention to any one our discovery. No doubt the inhabitants of Itapauama were relieved when the 'Beija Flor' resumed her journey.

Nearly opposite this place, on the other side of the Tapajos, was the little village of Pignel on high ground; and earlier in the day we had noticed Boim; but no further acquaintance was made, at this time, with either of those places, except what could be obtained by peering at them through our field glasses. The 'Beija Flor' was kept continuously along the eastern or sheltered side of the river, and in the course of the afternoon reached Aveiros, where she was moored for the night in an Igaripé at the southern end of the village. We at once made the acquaintance of a shopkeeper, who told us he was a Frenchman, but had much more the appearance of a German. He spoke in an indescribably soft manner, accompanying all he said by an unhealthy-looking smile, but was able to give us much information about the place and its inhabitants.

This we supplemented by taking a walk ourselves through the straggling village, and entering into conversation with several of the people. An unusually large number of skeleton houses mingled irregularly with the others, and this, with the dilapidated look of even the best dwellings and the mouldiness of the church, gave the place a decaying aspect, producing a feeling of melancholy in the mind of the visitor who strolls along the single attenuated street. The charming view of the river, looking southward, should, however, do something to drive away extreme depression. Aveiros is situated at the head of the lake-like portion of the Tapajos, which here becomes reduced to a width of about two and a half miles, and begins to be broken by islands from which up to this point it has

been almost free. With a level light throwing these into distinctness, and giving perspective and shadow to the folds of the hills and projecting headlands, the prospect as beheld from the village is very pleasing. A certain trim and almost artificial appearance is noticeable here as on many of the clear water tributaries of the Amazon, which is somewhat unexpected where there is so little of man's work in the landscape, and convinces one that nature, when left to herself, is quite as ready to produce effects which charm by their neatness and regularity as to revel in wild wildernesses and scenes of rugged grandeur.

On our way back to the launch we were courteously invited by a stout elderly gentleman to rest awhile in his house. He proved to be the Captain Antonio mentioned by Mr. Bates, and we were able to show him a copy of the valuable book in which his name occurs, but he could not read sufficiently well even to spell it out. Later in the evening he accepted hospitality from us on board the 'Beija Flor,' and brought some of his friends with him.

Aveiros is said to be the very head-quarters of the fire-ant, which partly accounts for its decaying condition and the number of its deserted houses, but the pest did not strike us as being worse here than in other places we had visited. One thing in the village attracted our attention on account of its unusualness, and that was that there were beds in several of the houses. These rare articles of furniture in this hammock-given country do not appear to be often occupied, even when people possess them; but simply serve instead of sofas or couches. They are generally

covered with a smart counterpane, on the *top* of which the person reclines, and a rug or blanket lies rolled up at the foot, ready for use should the night be chilly. We have heard of a Brazilian gentleman who, on visiting England for the first time, put up at a large hotel in Liverpool. It was in the winter season, and his first care on retiring to his bedroom was to look for the roll of blankets, which, according to his notions, should have been placed at the foot of the bed. Not seeing them, however, and little suspecting that they were spread out beneath the counterpane, he arrayed himself in his greatcoat, and stretched himself according to wonted custom on the top of the coverlet, where he passed a very uncomfortable night. In the morning he appeared downstairs blue and shivering, and lost no time in making his complaints. His mistake was soon discovered; whereupon the landlord conducted him to his bedroom and duly instructed him, by word and sign, how to insert himself, sandwich fashion, between the sheets.

Early in the morning after our stay at Aveiros we passed the mouth of the Cupari river on our left, and a little later, stopped at a large fasenda on the right, called Uricurituba, belonging to the Messrs. Franco and Sons. These gentlemen had a large cattle-farm on the low-lying level land, between the river and the range of hills running parallel with it at a distance of a mile and a half, and an extensive cacoal adjoining their house. They also supplied wood to passing steamers, and of this it was necessary for the 'Beija Flor' to take in a supply, so that we were delayed for some hours at this pleasant place. One of the sons

received us and conducted us round the estate, which had a prosperous, well-to-do appearance, such as we rarely witnessed in the whole course of our travels. We were told that forty men were employed on it, some of whom were slaves, and others friendly Indians who were willing to work at the rate of a milreis per day and their rations. The house was a large one, and in the verandah stretching along the front of it, a number of children were being taught to read and write by a young man, who was understood to be another of the sons. They were at work in full view of the Tapajos, and of a pleasant lawn sloping down to it, planted with ornamental trees, amongst which were two palms brought by the owner, who had travelled in the Old World, from Tangiers in Africa; but they were far less graceful than the majority of the palms growing so luxuriously, and in such great variety, in the forests of the Amazon valley.

On resuming our voyage, we crossed to the eastern bank of the river, which was high, and continued along it until the evening, when we dropped anchor in a little bay surrounded by limestone hills, on the slope of which was a small store kept by a Portuguese. This place was called Trovadoré, and when we went ashore at night to get our usual observations of the stars, we made the acquaintance of the proprietor, who welcomed us in his shop, where he was sitting with three or four other men; but whether these were friendly visitors, servants, or customers, did not transpire. He himself was a man of such marked individuality, that it would be difficult to forget him, notwithstanding the shortness of our acquaintance.

Black glaring eyes that seemed to be starting from his head, and dishevelled hair, gave him a fierce-looking aspect; and he talked so furiously—with such vehement gestures and actions—that he had all the appearance of being in a towering passion. On the other hand, what he said was exceedingly kind and friendly, and the contrast between his words and his manner was of the most marked and singular kind. For instance, he was offering us hospitality, and his sentences ran somewhat thus: "Should you wish to sleep ashore, I can offer you rooms and hammocks; pray, regard my house as at your disposal. If you wish for wine or cachaça, only ask for it. Look for no compliments from me, and do not stand upon ceremony." All this was said, however, with the strange accompaniments of arms flung wildly about, eyes flashing and rolling, and voice raised to the highest pitch as if in angry dispute. Hardly would it have been possible, had we sought the world over, to find anyone differing more completely from the smiling, soft-spoken French shopkeeper of Aveiros, whose acquaintance we had made only on the previous evening.

It was a short day's steam from Trovadoré to Itaituba, the principal town on the Tapajos, seated on its western bank at a distance of about 175 miles from Santarem. A straight row of one-storied, neatly built houses, running parallel with the river for a length of nearly half a mile, constitutes the principal part of the settlement. A pleasant green slope declines gently from the buildings to the edge of the water, and cocoa-nut and other palms make a graceful background.

The church was a very extraordinary edifice, for a new front appeared to have been in course of erection, when, for some reason, it was abandoned, and left incomplete and unattached to the remainder of the building. In other respects Itaituba was colourless, nor did any of its inhabitants leave a very distinct impression upon the memory.

Three important matters of business were attended to before we retired to rest: a pilot was engaged to go with us to the falls, the latitude and longitude of the place were ascertained, and provisions were taken on board, including a little sucking pig. This last matter we regarded as a great achievement. We met the drove of youthful grunters, to which the victim belonged, passing along the street as if making for some definite point; and being instantly desirous to secure one for a certain commemoration dinner nearly due, we watched to see whither they were bound, and hoped by that means to ascertain their owner. They turned in at the priest's, and that gentleman—who had spiritual jurisdiction over nearly the whole of the Tapajos, though very unecclesiastical in appearance—came to the window and owned to the possession of the pigs. He readily agreed to dispose of one or more at the rate of two milreis (4*s.* 4*d.*) per head.

From Itaituba to the first cataract is a distance of only thirty miles, and as we had now reached the last day of the week, it was intended to repeat our experience at the Trombetas Falls by resting through the Sunday within sight and sound of the rushing waters; but for the realization of this purpose circumstances proved unfavourable. The Tapajos, which up to

Itaituba is so free from insect pests, is infested above it by the *pium*, a new acquaintance to some of us, but destined to become subsequently only too well known on the tributaries of the Upper Amazon. It is a small but disgusting-looking black fly, whose puncture, scarcely felt at the time of the operation, leaves a little round spot of blood under the skin, which itches in various degrees with different persons. The wrists and neck are the favourite points of attack, and it is not unusual to see people, who have been travelling in a region where piums abound, with those parts of the body almost black by reason of the innumerable specks of coagulated blood which lie as thickly together as they could well be placed, without transfusing themselves into one dark mass. Not many of these undesirable guests came on board the 'Beija Flor,' as long as she was pushing onward, but as soon as we stopped near Maranhãozinho cataract, they began to arrive in considerable quantities.

The place at which we had come to an anchor was off the point of an island, where a considerable clearing had been made by Colonel Dobbins, an American, who had purposed to erect a saw-mill on it, and use the rushing water as a motive power; but he was hot-tempered—so the story ran—and could not get on with his Indian labourers. From this point we went forward in our montaria to see what we could of the Falls, but they were almost obliterated by the flood, now nearly at its highest level. A strong rapid between wooded islands was all that could be distinguished. The whole of the rocks were covered, and it was impossible to find a place from which a

general view might be obtained, nor did any inviting spot offer itself for the site of a camp. We were much disappointed with the place, and as the piums became increasingly troublesome, it was clearly unadvisable to spend Sunday in such a locality. Accordingly when we had succeeded in paddling against the furious current more than half-way up the fall, and had shot safely back again, we re-embarked in the 'Beija Flor' and dropped down river to the nearest fasenda, at the distance of about a mile.

At this place, which was called Jacaré, a party of six Indians were just beginning to start on an expedition up river, for the purpose of joining the proprietor, who was at his summer residence, where he had been procuring indiarubber. One of the men was tattooed after the pattern of the Mundurucu Indians. The whole of that part of the face which with Europeans is usually free from hair was one large dark patch, and the remainder was crossed by thick lines. The body down to the waist was covered by diamond-shaped spots, broken at regular intervals by bands passing quite round it. We were told that this man was not a Mundurucu, but had been seized by that tribe when young, and marked, against his will, with their peculiar design. He evidently shrank from observation, and felt ashamed of his adornment.

A part of our Sunday was spent at this place, and a part at another fasenda, called Barrazinha, a little farther down river. This latter stood pleasantly on a high ridge cleared of timber, sloping on the one side steeply to the Tapajos, and on the second more gradually to a deep dell, at the bottom of which was a

small lake shaded by graceful palms, and bearing on its bosom the enormous leaves and flowers of the Victoria Regia. The house itself, like most of the fasendas on this part of the Tapajos, had its roof brought down very low in front, and supported by pillars standing on a dwarf wall, in such a manner that a roomy verandah or piazza was formed. This arrangement was not only useful in keeping the inner rooms cool, but provided also a pleasant place for the family meals in full view of the river, and a convenient haunt for the pets of the house, which at Barrazinha consisted of a great variety of monkeys, parrots, and dogs. In the evening we returned to Itaituba.

Our plan in descending the river was similar to that pursued on the Trombetas. The places which had attracted our attention on the way up were touched at and explored on the way down; so that we were able to acquire a very fair idea of the character of the river's banks. The cliffs between Santarem and Cururu point are composed of soft laminated argillaceous sandstone beds, with grey clays on top, which are older than the red sand and clay deposit, and are probably extensions westward of the sandstones of Porto Alegré bluffs. At one place some broken, though probably horizontal beds of Ereré sandstone are seen, and this rock evidently underlies the rocks of the whole district. In many places where cliff sections occur, we saw the usual clay and sand deposits covering and completely hiding the older ones; but the underlying rocks were not met with much below Trovadoré. There, exposed in a cliff, was horizontally-bedded carboniferous limestone, containing some of the charac-

teristic fossils of that formation. At this place the limestone has been quarried for many years, and sent down in small crafts to the kilns at Ponto do Sale, near Santarem, where it is converted into a very pure lime. We believe that Professor C. F. Hartt was the first to point out that this rock, which also occurs at a few other places both higher up and lower down river, was undoubted carboniferous limestone.

At some quarries at Bom Jardim above Itaituba, we obtained specimens of that far-famed old fossil, *Productus semi-reticulatus*; while from amongst the beach gravel at Itaituba town we found a variety of other fossils of the limestone. Above Bom Jardim towards the falls we passed sections of sandstone, then black shale, and again sandstone, all lying in a horizontal position. At Uricurituba, and also at the base of a bluff not far from it, large blocks of greenstone are seen. Finally we saw rocks of another character in the reddish quartz porphyry of Maranhãozinho cataract.

On leaving Itaituba, on Monday morning, the 'Beija Flor' stood directly across the river to the high land on the other side, where a number of plantations occupied the flat summit, while the houses attached to them nestled in the snug valleys. The early mists had not yet cleared off, but hung about Itaituba in fleecy masses, giving it the appearance, with its formal row of neat houses and cocoa-nut palm trees, of being a toy village packed in cotton wool, ready to be put back into its box. A tall young American, who had observed the approach of the launch, met it on the shore as we got alongside, and accompanied us to the

top of the hill, where mandioca, sugar-cane, and rice were flourishing luxuriantly—the latter finding enough moisture for its exceptional requirements in the heavy rains and dews. The blackness of the earth indicated the site of an ancient Indian settlement, and much broken pottery lay about, amongst which we discovered portions of a stone hatchet and flint knife. The young American desired the men to take a load of sugar-cane down to the steamer for our use, and varied our route in descending the hill, so that in the course of the walk we had the opportunity of being introduced to most of his neighbours. Lastly, he made us acquainted with a new drink, peculiar to the district, prepared in some way from the mandioca root. It was sufficiently nasty on a first trial, and the wry faces made by some of our party after a draught caused intense amusement amongst the on-lookers.

At Santa Cruz, a little farther down river, the inhabitants seemed to consider their cemetery the chief point of attraction, and conducted us thither by a long road cleared through the forest. We detected nothing of interest in it, nor indeed in the small village itself, and hastened to cross the river to a house which, with its surrounding fruit trees, looked a pleasant object. Close by was a fish-pond, which had been formed by placing a dam across a stream at the bottom of a little valley. The owner kindly let off the water to give us a view of the fish it contained, among which was a half-grown pirarucu that had lived there three years. Another fish, of a grey colour, probably a *lau-lau*, whose head was furnished with six long feelers, which it sometimes laid back along its sides,

but at others carried forward, playfully tickled its smaller companions, making frequent dashes in pursuit of them.

It was at this place that we were haunted by two little boys, perfectly naked, and of portentously solemn demeanour. They addressed no word to us or to each other, but simply stared out of their large eyes in an impassive manner; and although we always saw them as motionless as statues, yet we went nowhere but they contrived to be at the spot before us. Their first appearance was at the fish-pond; then we took a walk into the forest, and there they were, hand in hand. On our return to the launch we found them on board to confront us, and when last seen they were sitting side by side in a canoe, each holding a biscuit we had given him, without any relaxation of that stolid gravity which they had maintained from the first.

That evening at Aveiros the little roaster was served up which we had purchased of the priest at Itaituba. Six months of our engagement with the Company had now exactly closed, and this was the commemoration festival—an occasion when it seemed fitting, after partaking of the best fare that could be provided, to congratulate each other on the progress of our mission. So eloquent were the speeches which were made, that it was confidently predicted that something abnormal would follow in the way of wind, rain, lightning, thunder, or other elemental strife.

Pignel and Boim, the two conspicuous villages on the western coast, were both visited on the following day. They proved to be composed, on a nearer

acquaintance, of very dilapidated houses, very few of which were occupied, probably because it was not the festa season, and most of the inhabitants would consequently be away at their plantations. And yet, if one might have judged by the condition of the people who remained in the villages, it would not have been unreasonable to infer that they were engaged in keeping high festival, for drunken men were as numerous as sober ones, and lay about in couples in the shade, or declaimed in the otherwise solitary streets. In the whole course of our journeying, we did not again see so many inebriated persons as on this and the previous day, in the little settlements of the Tapajos. On the whole, the Amazon valley is fairly free from the vice of intoxication.

Simultaneously with our arrival at Boim, a trovoado of great intensity was observed coming up river, and was at once declared to be the one which had hourly been expected after the rhetorical excesses of the previous evening. From the inky blackness of the sky, it was evident that the rain accompanying it was unusually heavy; and the distinct line of rough water rapidly approaching showed the wind was raising a very high sea; consequently we delayed our landing until the wild outburst should have passed on. Five young men of the place were less wise, or were ignorant of the extent to which the elements had been provoked to this display; for they, in their eagerness to board the 'Beija Flor,' put off at once in a canoe, pulling vigorously to outrace the storm. But they had miscalculated the length of the fine interval, and were caught midway by the wind and waves—as

vigorous in their first assault as in any subsequent part of the tempest. In a moment their montaria was filled, and went down without further warning, leaving the late occupants struggling in the breakers, where, however, they seemed to be quite at home; and, after some leisurable paddling and some frolicking with one another, we had the satisfaction of seeing the whole five effect a safe landing upon the beach.

Attention was now diverted to our own condition, which was far from being a pleasant one. The fierce rain, carried almost horizontally by the wind, was being driven under our awning, threatening to wet us to the skin and damage our goods. Everyone hastened to pull down the curtains, but these when lowered acted as sails, and as the 'Beija Flor' was lying off the exposed coast, she was in danger of being forced from her moorings, and cast as a wreck upon the beach. In this critical situation, it afforded some amusement to the remainder of the party, to see the Chief gravely pulling off his boots, and replacing them by slippers, as if he had made up his mind from the look of things that he would soon have to swim for his life. When questioned about his fears, however, he declared that he had performed the operation quite unconsciously. For years he had been accustomed, while travelling in British Guiana, to unlace his boots in order to be prepared for the worst when it became necessary to shoot a cataract, and the sense of danger had led him, quite without thought, to take the same precaution on this occasion. The launch rolled heavily in the big waves, but the anchor held

her stoutly, and the trovoado passed by without doing us any damage.

As soon as the surf had sufficiently abated we went ashore, but there was little of interest in the village. No inhabitants could be seen for some time, the five adventurous youths having probably retired to their hammocks whilst their clothes were being dried. Presently a drunken man made his appearance, reeling from side to side of the street, inveighing in choice Portuguese, with more than the eloquence of Demosthenes, against all foreigners—a theme no doubt suggested by the advent of the 'Beija Flor.' Farther on, in the gloomy-looking grassy square with the ruinous church occupying one side of it, some boys were playing, amongst whom we noticed a lad who at first sight seemed to belong to one of the fairest-complexioned races of Europe, but on a closer approach he turned out to be that singular rarity—an albino Indian. He was shy, however, and shunned our observation.

The Tapajos behaved exceedingly well that night. It was necessary for us to remain at Boim, and had fresh storms assailed us on this lee shore, or had the swell continued, we should have passed a very uncomfortable time; but the river smoothed out all its wrinkles as the sun went down, and became as still as a mill-pond. To complete our map, it was desirable to run down on this exposed side, if the trovoados would allow us, as far as Villa Franca. Accordingly an early start was effected, in order to take advantage of the exceptionally amiable mood of the weather; but it soon became clear that this was not destined to last, for the

water-horizon line was seen to turn perfectly black down the river, as in a badly executed landscape by an inferior artist—a sure sign that a squall was approaching. The 'Beija Flor' battled against it as long as the captain thought it prudent to expose her to the increasingly lumpy water, and then stood out from the dangerous coast, of which we had seen enough to convince us that it was more populous than we had expected, although naturally more weather-beaten than the other. Meeting the waves full face, the launch ploughed her way steadily onward, crossing the wide expanse of river diagonally, until she got into smoother water under the shelter of our old acquaintance—Cajetuba point.

At 6 P.M. we dropped anchor at Santarem, and thus brought to a close our experience of the Tapajos, which from first to last had been pretty extensive. Notwithstanding its capricious temper, and the rude rockings and buffetings we had so often endured upon its stormy waters, this noble river left the impression, which still endures, that it is by far the most charming of the Amazon tributaries. Its wide expanse of clear water, the varied outline of its coast, its gracefully curved sand-beaches fringing the little bays, its pleasant fasendas and numerous villages, dwell in the memory, and furnish it with a series of pictures lit up by high tropical lights, with which one would not willingly part.

Before returning to Obidos, one short excursion was made from Santarem, which occupied us an entire day, and though devoid of incident was by no means barren of interest. Making a very early start, just as

a heavy storm of thunder, lightning and rain was coming to a close, the 'Beija Flor' sped down the Amazon, and turning into the Itukie channel, had by breakfast-time reached nearly the far end of it. This Parana-mirim had been formerly visited by us in the 'Helvetica,' and it was impossible to help contrasting favourably our present rate of speed with the slow progress that had to content us on that occasion. Before re-entering the Amazon, the Itukie receives the waters of a stream, called on our map the Ayaya, believed by us to be a small river. The object of our trip was to see how close it was possible to get, by water, to the high ground forming the eastern prolongation of the table-land of the Tapajos; and as it seemed that the Ayaya must come from thence, we turned into it. At the end of an hour we skirted the hill at a point where a large house with a sugar-mill attached, belonging to the Baron of Santarem, stood at the foot, and plantations sloped steeply up the sides. Our course now led us farther and farther away from the high ground, which, however, we could still see on our left, clothed with forest, and presenting a fine contrast to the flat grassy land on our right, stretching away to the Itukie channel. Sometimes the windings of the Ayaya made us believe, for a moment, that we were nearing the hill, but a sudden turn took us away again; and as the volume of the current, against which we were steaming, rather increased than diminished, we concluded that it was not a river but a channel. The clearness of the water showed that it could not flow from the Amazon, and we began greatly to wonder where we should turn up. Now

and again little lakes were crossed, and it was difficult to find their outlets, which, in some cases, involved acute-angled turns. Most of the party had clambered to the top of the awning for a more comprehensive view of what was ahead, with the object of solving the mystery of our destination. Along the low banks the houses were standing in the water, deserted on account of the flood; and for the same reason, the cattle which usually pasture here in the dry season had been removed, except at one farm which happened to be somewhat higher in level. Quantities of water-fowl, cranes, ducks, and caraows, were disturbed as we passed onward; and large porpoises played before the 'Beija Flor.'

At length, about sunset, we emerged upon the Tapajos, not far below Santarem, through the mouth of a channel known as the Mahica. Evidently this and the Ayaya are the same Parana-mirim, though differently named—probably through ignorance of this fact—at the entrance and exit. We had been steaming steadily for thirteen hours, and must have traversed a distance of at least seventy miles.

Very rough stormy weather set in subsequently to this expedition, and as one of the Company's steamers was expected up river, we preferred to send on the 'Beija Flor,' and take our passage to Obidos in her. She proved to be a fine ship called the 'Manaos,' under the command of Captain Talisman, and was the bearer of quite a large packet of letters and papers for the Commission—a most welcome arrival, for we had long been without news from England. Truly, the great world had been moving on apace, while we had

been far away from its stir in these remote regions. At home a general election had taken place, involving a change of Ministry: in Spain and Africa, the Carlist and Ashantee wars had entered upon new phases; the Bengal famine had assumed serious proportions; Dr. Livingstone was dead, the Duke of Edinburgh married, and the Tichborne trial was drawing to a close.

# CHAPTER XIII.

## ON THE JURUTY.

Leave Obidos — Parana-mirims — Parentins Hill — Site of Ancient Indian Village — Escaping from Mosquitoes — Lake Juruty — Receive Visitors — Anchor off Juruty Village — Purchase Fruit — Strange Signatures to Receipts — Moonlight View — Service in the Church — Remark of Irrepressible Little Man — Visit Ball Room — Our Irrepressible Friend accused of Theft — Energetic Dancing — Arrive at Villa Bella — Description of the Town.

AFTER a short stay in Obidos, we hoisted anchor, and were once again pursuing our course up river. We dashed off gaily past the fort and bluff point beyond, and then crossed the Amazon to its southern shore. Before we had got three-quarters of the way over, the pressure of the steam, and consequently the launch's speed, became greatly diminished. Captain Mamedé stated that it was owing to the circumstance of the soft and green condition of the furnace wood, which prevented its burning rapidly enough to give sufficient heat beneath the boiler. This was quite a new experience to us, for hitherto we had been able to procure good, hard, dry wood, which gave plenty of steam; and we naturally supposed that all sticks cut for steamers were alike in quality. The 'Beija Flor' worked very slowly up stream close to the shore, and once or twice was obliged to be stopped to enable the steam to accumulate, an act which reminded us very

forcibly of the similar but chronic condition of the despised 'Helvetica.'

It being then one of the cacoa seasons, we saw, as we passed along close to the cacoals, people engaged in gathering and cutting open the ripe fruit of the chocolate tree, preparatory to washing the pulp from the beans, and drying them on stagings ready for market. The huge heaps of seed covers, or pods, thus accumulated, appeared to be thrown into the river, and not applied to the roots of the trees as one would naturally suppose should have been the case.

The entire bank of the Amazon passed during this day's journey was occupied by cacoals, most of which belong to Obidos people. After proceeding a considerable distance, we left the main Amazon, and entered one of its side channels, called a Parana-mirim, which lay between the island of De Cima and the mainland. These Parana-mirims are deep, and being comparatively narrow, are sheltered from the strong winds; hence they are always followed by small craft when ascending and descending the Amazon. Generally they are simple channels, but in some places have bifurcations which produce a regular network of natural canals; and they usually bear the name of the island along which they run. At the time of our journey the Amazon was pretty high, its level being within two feet of the water-mark of floods.

Leaving the De Cima channel and passing up a mile or two of the main river, at a place where the island of Bom Jardim was seen on the opposite side across the watery waste, we entered and proceeded along the

Parana-mirim Maracca-assu, in which we passed a small village, situated on high ground on the mainland. This village, or *Aldea*, as it is called, was formed at the expense of Juruty village on the lake of that name, by many of the people leaving that place and coming here to settle. Then the rights of the former place were taken from it, and granted to this one, while the Government of the province issued a decree that the old village no longer existed in the eye of the law; although, as we subsequently found, it still had an existence in fact.

Arriving at the mouth of a narrow black-water river, called Juruty, which runs from Lago do Juruty, we entered it. Not far up we came to the entrance of a small lake on our left, into which we turned, and, crossing it, soon arrived at a settlement at the foot of Juruty hills. Landing, we ascended a pathway up the steep slope to the level top of the table-land, there 270 feet above the lake below, and walked back some two miles in the forest, along a well-beaten track. The soil on the hill's brow was of a rich, black nature, containing broken Indian pottery, and on it the people living by the borders of the lake had a large cassava plantation.

Continuing our journey, after regaining the Juruty river, we entered the large lake of the same name, and were much struck with the placid beauty of its scenery, as we steamed across it to the remains of the old village on its western shore, off which we dropped anchor for the night. Landing on the white sand beach, we took a stroll through the Aldea, composed of some twenty houses; and, calling on the chief man

of the place, were cordially received. He took us to see the church, situated in the large open grass-covered space above the village, which having been recently repaired and whitewashed, presented a neat and creditable appearance, of which he seemed justly proud. There were very few inhabitants in the village at the moment, but at dusk canoe after canoe arrived from all parts of the lake, bringing home the villagers, who had been either fishing or working in their plantations in the neighbourhood.

Next morning we returned to the Amazon, and ascended it for a distance of some seven miles, until we reached a place where the river washes the foot of the Parentins hill.

Fortunately on landing at the spot, we found a path leading to its top, which we followed, coming upon the table-land at a height of 280 feet above the river. The surface along the vicinity of the hill's edge was as usual covered with a black soil, which changed gradually as one receded into the forest, until it assumed its natural condition, showing plainly that it is undoubtedly of artificial origin. Searching in this black soil we were rewarded by finding in it, even to a depth of eighteen inches, the remains of earthenware cooking utensils, similar to those strewing its surface. Pieces of broken bones of various animals, with a stone implement or two, plainly denoted that the spot, like that on many other elevations bordering the Amazon and its branches, was the favourite dwelling-place of Indians in bygone days; Indians whose implements of warfare and industry were made of polished greenstone—a rock of infrequent

occurrence in the Amazon valley, but existing in great quantity far to the northward. Villages must have stood upon these spots for ages, to have accumulated such a depth of soil about them; and probably their original founders were of a race that has now completely vanished.

At the present day these localities are highly prized as agricultural grounds, owing to their fertility; and they bear the name of "Terras pretas" (black earths). We have observed them occurring in many places almost too numerous to mention, and generally upon elevated commanding positions.

When we returned to the river's edge, we went in our montaria up a small creek, into a sort of pond covered with the Victoria Regia; and in so doing met a woman with a lot of children coming down it in a canoe; the stream being narrow and the canoe close to its bank, one of the children, on seeing us, jumped overboard, and quickly darted off into the bush.

Ascending the Parentins Parana-mirim we rounded the upper end of the island of that name, and scudded down the Amazon until we arrived, at dark, at the lower end of the same island, where we made our launch fast to trees for the night.

Next day we explored the western face of the Parentins hill, by ascending a small lake in our montaria, and forcing it through the *Igapo*, or flooded bush, to the foot of the high ground; and then, descending the Amazon to the Juruty river, returned to Juruty lake. Following its northern side, where the land between it and the Amazon is low and swampy, we came upon a small and recently-established

fasenda, upon which were some twenty cattle, one horse, and a few sheep. Upon a pole, close by its house, was a skull of a huge jaguar, which had been shot by the owner whilst prowling about bent upon securing one of his cows. Up an arm of the lake we made fast for the night, expecting there to be free from the attacks of the mosquitoes, according to the tradition that none are found over black water; but, to our disgust, when the moon rose, they came upon us in myriads. Reading and writing were out of the question, and, as the night was so beautifully fine, the surface of the lake being like a mirror, we stepped into the montaria, and amused ourselves by paddling about amongst the tops of the now submerged igapo trees, until the hour for slinging hammocks arrived.

Let no reader, we pray, become impatient at the frequent occurrence in this volume of our complaints against mosquitoes and other pests, for some allowance must be made for us in the matter. Harassed day and night by some sort or other of insect-fiends, our sufferings have become so indelibly impressed upon our memories, that our minds must be unburdened when an opportunity offers. Besides, we became so accustomed to speak of them in daily conversation, that we cannot throw off the habit all of a sudden. Upon the Amazon, conversation is invariably commenced by referring to the numbers and ferocity of mosquitoes on the previous day or night, just as in England we greet a friend with some remark or other upon the state of the weather.

Next day we made one excursion from the head of this arm through the forest, and another from the

upper end of a similar branch more to the eastward. After that we ascended the main lake, which trends in an E.S.E. and W.N.W. direction for about fifteen miles, and then, sweeping round, lies at right angles to this direction for some distance. Above the village it keeps a pretty uniform width of about a mile, and, at short intervals, has deep bays or arms, with little creeks at their heads, which occur directly opposite each other, on both sides, with extraordinary regularity. These arms are wide at their mouths, and taper gradually to a point inland, at distances of from one to two miles back. Low hills come everywhere to the water's edge. This singular lake, like many others in the Amazon valley, resembles the course of an ancient river, of much greater magnitude than the present one, that runs into its upper end and flows out at its mouth. Again, when we view the diminutive streams now running into the heads of its long arms, it seems difficult to understand how they could have cut out such deep and wide channels.

Descending the lake we anchored off the village, which presented a very animated appearance, owing to the number of people dressed in their best attire, who were strolling about; reminding us that the day was Good Friday, and, consequently, that the inhabitants of the Aldea were keeping high festival. We had hardly made all snug, before three women and some young men came on board to pay us a visit. We did the honours, providing the ladies with chairs, and all with a cup of coffee each. One of the party gave the ladies a book on Natural History, which was copiously illustrated with sketches of birds, beasts,

and reptiles, in order to amuse them; but they quickly got tired of it and put it down. There they sat quietly for a time, without uttering a word, but gazing at things around them. All our attempts at amusing them were of no avail, and, as they appeared only to wish to be allowed to remain in quietude, we refrained from further efforts in that direction. After they had been sitting like statues for nearly an hour, one of the men came aft and asked them if they were ready to go, upon which they replied that they wished to remain a little longer. Thus it was evident that they were enjoying themselves, notwithstanding all the appearances to the contrary. Presently they arose with one accord, shook hands with us all round, and, with the rest of their party, went ashore in their canoe.

Accompanied by a guide, on the following day we explored the land on the north side of the lake, some three miles from the village. To do so we had to force our montaria up a flooded creek, at the head of one of the arms, before reaching dry land; the water being ten feet or more above its usual level and almost up to flood-mark. In so doing our boat took on board a small cargo of leaves, dead twigs, ants, spiders, and all manner of creeping things. Upon the edges of a small stream, which we crossed in the forest, we saw two very fine tree-ferns, the presence of which, at so low a level, somewhat surprised the Botanist.

After finishing our work there, we crossed the lake, and walked by land from its western side to the little Parentins lake, and by 6 P.M. were back at our anchorage off the village. Having in the morning

sent word on shore that we would buy a certain quantity of furnace wood, the men of the place had been engaged all day in cutting some for us. As soon as we arrived, quite a little fleet of canoes put off from the beach laden with the results of the day's chopping, and soon their owners were busily engaged passing it on board; one of our crew calling out the number of each piece as it was passed along, thus keeping tally.

During this process a boat came alongside, half laden with oranges and avacado pears, almost the entire quantity of which was purchased by ourselves and crew. It must seem strange to those who connect oranges and other luscious fruit with tropical climes, to think that our purchase on this occasion was worthy of record. But, as a matter of fact, fruit is a rarity on the Amazon, owing to the improvidence of the inhabitants bordering its banks.

As the proprietors of the wood were numerous, we had considerable difficulty in arranging the payments, and had some trouble in getting the receipt signed. However, one irrepressible little man of broad build, who, from having imbibed a trifle too much cachaça, was very amusing, was induced to undertake the task. He seized the pen, waved it in the air with a grand flourish, and seating himself at the table, dashed off a quantity of writing on various parts of the papers, in a surprisingly good hand. We hoped that his signature might be somewhere amongst it, but on after-examination found that one account was signed with the name of the village, and the duplicate with some record of the other men who had been engaged with him. One of them drew out from his pocket a heavy

copper coin, equivalent in value to an English penny, and offered it to the member of the Commission who had drawn up the receipts, intimating that it was in payment for his trouble.

It being the second day of the festa, Mass was about to be held in the church, and a dance would take place afterwards, at which we were expected to attend. After dinner we all landed by moonlight, accompanied by our Captain, and strolling through the village went to the church to see the Mass performed. The scene from the front of this building, looking upon the still, calm lake, spread out before us, and bathed in the silvery light of the full moon, then just risen above the distant horizon, was one of great beauty. The lights from the village, and those from our little steamer in the offing, added some life to the picture, but without injuring the primitive tone of the whole.

The service was conducted entirely by laymen—no priest, we were informed, ever coming near the place—and though not according with our notions of religious worship, was nevertheless conducted with decorum and sincerity. A lot of women knelt in the body of the church, while a row of men stood in front of the altar and chanted a Litany; one being provided with a huge drum, which was now and then beaten furiously, and rather discordantly, with what object we could not ascertain. When this was over, those who had officiated advanced to the altar railing and chanted a melancholy dirge of fearfully prolonged and dismal notes, which was not improved by the monotonous beating of the discordant drum.

A filagree crown—that of the Virgin, it was said—was now brought down from the altar, to the middle of the church, and there held by one man, while two others, each holding a candle, stood on either side. One by one, many of the worshippers advanced and knelt before the crown, then kissed it and retired. The broad-shouldered irrepressible little man, before spoken of, who with some other men had been seen at intervals loafing about the doorway during service, kissed the crown more ardently than any of his fellows; and in passing us at the door, struck a theatrical attitude, and said, "One thought for heaven and one for earth;" a remark which had a more emphatic meaning in the light of subsequent events. One gentlemanly man, dressed in a black coat, white waistcoat, and nautical straw hat, was seen to approach and kiss the crown. We wondered who this swell could be, so superior in appearance to the inhabitants of the place, who were all as usual coatless; but as he turned to come out, we were surprised to recognize in him our Portuguese engineer.

All then left the church and marched in procession down to the village, headed by the drummer, singing as they went along, while we followed in their train. Arriving at the house where the ball was to be held, most of them went in and sat on benches along its walls. Coffee was then handed round, and after a time dancing began, being kept up, as we afterwards learned, until the morning.

A short time after we entered the ball-room an amusing scene occurred. It seemed that one of the men who had received money from us for wood left it on

a table in his house, and upon returning found that it was gone. He came and accused our broad-shouldered friend with having taken it, whilst all were at church, but the latter, with much levity, denied having touched it, walking up and down the room, and haranguing on the subject most eloquently. It was evident that his comrades believed him to be guilty, but his wit was so keen that he contrived to turn the laugh against his denouncer. The whole affair ended after much talk, excitement, and flying round of various indignant individuals.

The dances consisted of valses and quadrilles, polkas and fandangos; and never on any occasion did we witness the latter performed with such spirit. Of the men, the engineer of our launch decidedly carried off the palm. He danced high in the air, and close down to the ground; spread out his coat-tails like sails; and went through the most fantastic hops and flings. His energy seemed untiring, but he was cut out at last by the irrepressible little man, who also did the thing well; but the engineer would not allow him much time for the display of his talents. Flinging off his coat he went at it again, superseding his antagonist, and throwing himself about more vigorously than ever, until the spectators were tired, and the music stopped to announce the end of that dance.

After looking on for a short time we adjourned to the beach, and whilst taking observations of stars for latitude, the lively strains of dance music and the murmurs of merriment reached us from the village from time to time, showing that the revellers were enjoying themselves, and making the most of it.

By 3 P.M. on the following day we reached Villa Bella, a small town situated on the south bank of the Amazon, not very far past the Serra de Parentins. We went ashore, and entering a shop, inquired for the house of a doctor to whom we had a letter of introduction from the agent at Obidos. There were three gentlemen in their shirt-sleeves behind the counter playing cards, one of whom, speaking in very fair English, informed us that the doctor was at the time away from home. We were rather surprised to hear our language in the mouth of an Amazonian Brazilian, for hitherto we had not met a single instance of a native speaking English, from the time of our leaving Pará. Most, or perhaps all, educated Brazilians on the Amazon speak French, but very few know a word of English. This is to be wondered at, when one reflects that the chief amount, if not all, of the trade of the country is carried on with England and the United States.

On our way back again we followed the second, or back street of the town, which runs parallel to the river's bank, and visited the cemetery in the forest at the end of a broad wide road in rear of all. We were joined in our walk by a young man—a friend of Captain Mamedé—who had lost one arm at the shoulder, which he said had been bitten off by an alligator. This unfortunate occurrence took place when he was in the act of fording a river on horseback, at a cattle farm in the neighbourhood. Most probably the arm was only crushed by the alligator, but so injured that it had to be amputated.

We also saw a horse—feeding along with some

others upon the fine pasturage afforded by the grass in the streets—which had no tail whatever, while on one of its hind-quarters there was a large scar. This damage had also been done by an alligator, when the horse was feeding in a morass.

A wide road cut in the forest ran about half a mile back to a lake of black water, upon the opposite side of which was a good house and cattle-farm.

A shower of rain, which soon rendered the path in the middle of the streets almost impassable with soapy mud, drove us back to the shelter of our home in the 'Beija Flor,' where we spent our Sunday afternoon in rest and quietness.

Villa Bella da Imperatrix—as the official name of the town runs—is by no means a lively place, in fact it may be said to be quite dead. It is built upon ground varying in height from 20 to 40 feet above the water-mark of floods, which presents a cliff of red and yellow clay to the Amazon. When the river is low an extensive sand beach fronts it. Some ferruginous sandstone is seen in one part of the cliff, which, extending under water off the port, causes considerable annoyance to the captains of steamers, by holding their anchors in its grasp. Owing to the strong current, steamers stopping there are always obliged to cast anchor, and their captains never feel sure of getting them on board again. It is said that there are quantities reposing on the bottom, which have been lost by fouling these rocks.

Two main streets run parallel to the river, which are only partially built on, so that there are gaps in many places. The principal one faces the river,

and contains some well-built houses of the Amazonian type. The second street has buildings only on its eastern side, and therefore faces the forest. Four or five shops and a wretched church complete the list of the noteworthy buildings which it contains. A peculiarity attaches to this church, from the fact that its porch is almost as large as the body of the building, and contains a small mounted cannon, probably used in connection with the services, or for the purpose of blowing up the refractory parishioners!

## CHAPTER XIV.

### ON THE JAMUNDÁ.

Leave Villa Bella for the Jamundá River — Intricate Geography of its Mouth — Night in the Caldeirão — Lake Maracaná — Faro — Wide Distribution of Bottled Ale — First Cruise up the Lake — Dinner and Dumplings — A Monster Spider — Second Trip on Lake — Abowucoo — An Empty Coffin — The Great Aguadua — Wild Conjectures — Entertainment at Villa Bella — Swept Adrift in the Night — Up the Amazon to Cararaucu — Capella — A Wily Jew — Arrival at Serpa — Inspection by Custom House Officer — The Town — Tiny Newspaper — Lake Serpa — "The Fighting Téméraire."

No unnecessary time was lost at Villa Bella, for at noon, on the day succeeding that of our arrival there, we started again upon a fresh expedition of a week's duration; so that the 'Beija Flor' may be described as having only touched at the place, and then, humming-bird-like, flitted away again. Brief, however, as had been our stay in port, the one purpose of our visit had been attained, for the Company's steamship 'Belem' had, according to expectation, passed up river in the interval, leaving with us a bundle of letters and papers from England. Our new destination was Lake Maracaná, a place which, though mentioned in our instructions, we had failed to find on any map in our possession; but, after much inquiry, definite information had been obtained to the effect that it was connected with the Jamundá river, at no great distance from the Amazon.

On leaving Villa Bella it was necessary to betake

ourselves once more down river to a point opposite the mouth of the Juruty, where a Parana-mirim, called the Caldeirão, re-enters the Amazon opposite the eastern end of a cluster of islands, known also as the Caldeirãos, or "Whirlpools," from some miniature maelstroms formed by swirling currents in their vicinity. The geography of the mouth of the Jamundá is exceedingly intricate, as may be judged when we mention that in order to get into this river we were obliged to enter the Caldeirão channel, pass from it into another, called the Bom Jardim, and from thence into our old acquaintance the Sapukia, which brought us before long to the Jamundá itself. Why it should not form a direct junction with the Amazon, and have a decent respectable mouth of its own, it is difficult to tell, for the tributary bears down directly towards the main river, until only a narrow neck of swampy land, some three or four miles in width, intervenes; and then turns sharply round, to distribute its waters by the Bom Jardim into the Amazon much lower down, and by the Sapukia into the Trombetas as already described, without, however, perceptibly swelling the volume of either of the channels. This is perhaps owing to the numerous lakes of immense extent, adjoining the river in its lower part, in which the evaporation must be enormous; thus dispersing much of its water into the atmosphere, and leaving only a small contribution for the Amazon — quite out of proportion to the length and importance of the Jamundá itself.

Darkness overtook us on the first day of our journey before we had got through the Caldeirão. It was with reluctance that we were compelled to come to a hal-

for the night in its narrow muddy channel, for we had been pressing onward in the hope of reaching the clear water of the river, where, we well knew, the plague of mosquitoes would be far less intolerable than here; but to have gone on after the light had faded away would have broken the continuity of our map, which was not to be thought of. Our forebodings respecting the number of pests likely to come on board thirsting for our blood were fully realized, and after an uncomfortable evening we were glad to take shelter within our mosquito nets at an early hour. To our surprise the stillness of the night had been broken, just before, by the passing of a small steamer along the narrow channel, where we had little expected to see anything of the sort. As she passed by, snorting and saluting us by harsh whistling, the light from her boiler fire and the sparks from the funnel lit up with a red glare the walls of forest that hemmed us in, and gleamed upon the muddy water. The perfume left behind her on the still, moist air would have sufficiently informed us that she was a cattle boat, had we not already arrived, by a process of reasoning, at the conclusion that her business in this retired place must be connected with the cattle farms on the Sapukia. Some days later we learned that she was called the 'Progress,' and became acquainted with her owner—Mr. S——, an American, residing in Serpa.

On the following morning we made the curious and abrupt turns through the intricate channels leading to the Jamundá, and, entering that river, found it to be about a quarter of a mile in width; whilst on either hand stretched away, as far as the eye could reach, the

lagoon-like lakes already referred to, divided from it only by narrow spits, in most cases submerged by the floods, but having their position indicated by the strips of forest growing along them. At mid-day the 'Beija Flor' reached Lake Maracanã, which proved to be somewhat like Lake Juruty in character, having numerous creeks running up among low wooded hills, but was rather less extensive. Rainy weather set in soon after our arrival, and somewhat delayed the exploration of these branches and of the adjoining forests, which occupied the fine intervals of two entire days.

Maracanã was rather thickly populated, for although there was no village upon its banks, detached houses were numerous, and occurred at tolerably regular distances, especially upon the portion nearest the entrance. The people were very friendly, and clustered around the 'Beija Flor' in their canoes, offering fowls, eggs, and vegetables for sale more readily than any with whom we came into contact either before this time or subsequently. Numbers of women came freely on board to see what our craft was like, dressed in their best, and often bringing their babies with them. Those of Indian blood were very quiet, and simply took in all they could through their eyes and ears, and without asking any questions; but one rather good-looking female—half-Negro and half-Indian—was very lively. She handled everything, wanted to know what it was called in English, and declared her intention of learning the language. The grotesque pronunciation, however, which she contrived to give the few words she picked up, by no means promised

that she would be an apt scholar. The men were all anxious to have a ride in the 'Beija Flor,' and when they found that we were going up any particular arm of the lake, declared that they had business in that very direction, and asked if it would "do harm" if they hitched up their canoes behind the launch and went with us. It was amusing to see how proudly they waved to their friends upon the shore as the 'Beija Flor' swept by at her usual smart pace; nor did they ever express a desire to be set down at any particular spot, their one wish evidently being to get as long a turn as possible.

From Maracaná we continued our voyage up the Jamundá, which preserved its narrow windings between flat banks, until it suddenly opened out upon the wide expanse of Lake Faro—one of the prettiest in the Amazon valley. On a point, at no great distance on our right, backed by hills of fair elevation, stood the little town of Faro, presenting rather a good appearance, with its grassy slope in front stretching down to the margin of the water, and a park-like lawn at one end. Unfortunately, as the 'Beija Flor' drew nearer, it became evident that many of the houses, perhaps one half of them, were in ruins. There was one decent-looking store at the far end of the place, to which we betook ourselves when we had landed, and, by way of opening up a conversation which might afford us some information about the district, inquired of the proprietor if he had any English beer, without much expectation that such an article could be obtained in this remote settlement. To our surprise, however, it was at once forthcoming,

and we often subsequently met with it in much more unlikely places; yet it is difficult to understand why it should be so widely diffused, for it can only be sold at a price which would seem to put it beyond the reach of the natives, even if it agreed with their tastes. Bass' Pale Ale, Peek and Frean's or Huntley and Palmer's biscuits, and commodities of that kind, are your true travellers, continually turning up on the very confines of civilization to surprise the adventurous wanderer, at the very moment, perhaps, when he is congratulating himself that he has got far beyond the limits of manufactured articles of this sort. Should the North Pole ever be discovered, it would scarcely surprise us to hear that a bottle of ale, a tin of biscuits, or a packet of corn-flour, had been there to confront the successful explorers!

Nothing of special interest claimed our attention in Faro, and as there were yet two hours before sunset, it was resolved to go a little farther along the lake, for the purpose of seeing what was beyond the turn which cut off the view a little above the town. The Botanist, however, had strolled off into the forest, and it was necessary to set the whistle going to recall him The signal brought down upon us, at a smart trot, a young man who introduced himself to us as the "son-in-law of an Englishman," and learning that we were about to take a short cruise up the lake, he asked if it would "do harm" if he went with us. Put in that way, it was of course difficult to refuse his company, and as soon as Mr. Trail had turned up, we were off, with this addition to our number. The reach of Faro lake opening up to view as we rounded the bend, was

bordered with bold bluffs, and presented a fine appearance in the level sunset light. As it was found to trend towards the Maracaná hills, we resolved to extend our exploration of it on the following day farther than we were now able to do. The dinner hour had fully arrived when we again dropped anchor off the town, and as our self-introduced acquaintance showed no disposition to go ashore, it was necessary to ask him to join us, which he did with great alacrity.

Many persons imagine that in a region immediately bordering upon the Equator the heat must be too great for the development of a good healthy appetite; but the contrary was the case in our experience. Living, as we did, entirely in the open air, exposed usually to a brisk wind, and with sufficient occupation to keep us from ever falling into a lethargic state, it was often positively difficult to satisfy the cravings of hunger. To remedy this undesirable state of things, William was accustomed to make us a dish of boiled dumplings, simply composed of flour, lard, and water, and of such compactness and ponderosity, that one would inevitably turn away from them at home with frightful visions of indigestion. These made their appearance towards the end of meals, and were eaten with preserve, or a mixture of butter and sugar, until all hunger pangs were finally allayed. On the present occasion, they were brought forward when we had done full justice to a couple of fowls from Maracaná, and the son-in-law of an Englishman at once went into raptures over them. Never had he tasted anything so delightful, and would we object to his

wrapping one in paper to take home to his English wife? William at once made up a parcel for him, which he transferred to his pocket; but before he retired to the shore with this treasure, he invited himself to join us on the following morning, in our proposed walk into the forest at the back of the town. He would take his gun, he said, and grew quite voluble respecting the sport we should have; not, he explained, that he meant to spoil our chance by anticipating our shots, but whatever we missed, that he would fire at and kill!

Next morning the intended walk came off at an early hour, but it is hardly necessary to say that we did not call for our talkative acquaintance, and thus afford him the opportunity of fastening himself upon us for the whole of another day; on the contrary, we were undignified enough to make a considerable detour for the sake of giving him the slip. The chief incident of the ramble was the capture of a large spider—the biggest we had ever seen or heard of. It covered, when standing in its usual position, a space ten inches long, by eight wide, but could be stretched out to a total length of eleven and a half inches. Its body measured two and a half inches in length by one inch across the thorax.

As we steamed away from Faro for our more prolonged trip up the lake, we could distinguish, through our glasses, the young man whose further companionship we had eluded standing disconsolately in his doorway, gazing after the retreating form of the 'Beija Flor.' Our journey extended about fifteen miles, at the end of which we still saw the lake

stretching before us as far as the eye could reach, the charming vista between the folding hills seeming to beckon us onward; but to have gone farther would have been exceeding our instructions. The portion we had traversed was shaped like a reversed letter S, and averaged about two miles in width. Four large hills, all flat-topped, dwarfed the lesser elevations; and were known respectively as the Serras do Medea, Copo, Maracaná, and Ajuruá. The former was ascended, and found by the evidence of the aneroid to be 376 feet in height. The principal tributary of the lake is the great Waiebee river, which we turned aside to explore; but it developed nothing of interest, except the quantities of ancient pottery scattered about on a sandy point at the mouth, showing that this must have been the site of an Indian village—one of the very few cases in which we found these relics at a low elevation.

On our way back to Faro many landings were effected, and short walks undertaken into the forest. The lake is very thinly inhabited, which gives it a somewhat lonesome appearance, the only drawback to its beauty. Meanwhile the weather had been gradually getting more and more showery, and, on our return to the town, settled into a very wet night. This was much to be regretted, for not a single observation for latitude and longitude had been taken since we left Villa Bella, every night having been either rainy or cloudy, consequently we were unable to correct our map, and can only speak approximately of distances on the Jamundá.

On our return journey, commenced on the following

morning, we passed the mouth of Maracaná, and entered the next lake on the same side of the river, the name of which was Abowucoo. This proved to be of very irregular outline, and the whole of the remainder of the day was occupied in exploring its numerous branches, all very thickly inhabited. As we were anxious to get at least one set of star observations before quitting these regions, we looked about at sunset for a house with a cleared space near it, facing in a suitable direction, with the intention of anchoring off it for the night. One that seemed in every way suitable was at length observed at the head of a small, still inlet; and, as the 'Beija Flor' turned aside to enter the snug harbour, all eyes were fixed upon the building, which had a thatched roof, brought down very low in front, supported by pillars after the fashion of the Tapajos fasendas. What was the strange-looking object which occupied the verandah thus formed? Glasses were brought into use, and the mysterious thing resolved itself into a large black coffin, with white tape adornments, standing upon a pair of tressels. No one came out of the dwelling to see who we might be, but some of us landed and ascertained that the "narrow house" was without a tenant, and that it had been prepared for a young woman, who, after an illness of six years, was now thought to be near her end. It is astonishing how gloomy the little haven had suddenly seemed to grow, after thus becoming associated with the memorials of death. The water was now observed to be of inky blackness, the overhanging trees were of an unusually dark and sombre green, and the house had a stained

and mouldering appearance. Everyone agreed that the place looked like a "fever hole," and the Captain received orders to find some more cheerful anchorage for the 'Beija Flor.' Finally, we came to moorings off a dwelling in the main lake, where we were much annoyed by mosquitoes of the slender poisonous description, commonly known in English colonies as "gallinippers"; but succeeded in obtaining fair observations of the Southern Cross, though the Great Bear was unpropitious.

Next to Lake Abowucoo, keeping still on the eastern side of the river, comes the great Aguadua, which we entered on the following morning; not by its proper inlet, but by a short cut across the submerged land intervening between the lake and river. It was a rectangular sheet of water, about four miles long by three broad, surrounded by low-lying flat land, except on the northern side, where it sends off two long arms running up between the hills. One of these had numerous inhabitants, who pressed round us with eggs and oranges for sale, among whom was a rather good-looking woman. Some one chanced to remark on her appearance, and she inquired of the Interpreter what had been said. Upon learning that she had been spoken of as very pretty, she seemed to be greatly delighted, and replied in a most innocent manner, "Tell the Senhor, then, that I am very much obliged."

Near the only house on the eastern shore of the Great Aguadua, we noticed a huge bell, looking almost as large as Big Ben, suspended from the horizontal branch of a great tree. Why it was hung there, or

what the use of it might be, was more than we could guess.

At the place at which we anchored that night the people said that they had heard that the Emperor of Brazil had sold all the inhabitants of the Amazon valley to the English, and that we had arrived in our launch in connection with this matter, probably to count the heads of those who had been thus transferred! This was only one of the wild conjectures started to account for our mysterious proceedings. Perhaps the most favourite idea was that we had to do with the sale and repair of sewing machines.

From this halting place we made a direct and unadventurous journey back to Villa Bella, where we spent two entire days in preparing reports and copies of maps. When these had been completed, and got ready for the steamer, now due to pass up river, we took a stroll through the town, and were surprised to see a female parading the streets in a huge and very ugly mask, sounding a large bell, and bearing on her back a green placard inscribed with the legend "*Theatro hoje*," from all which it appeared that the people of Villa Bella were to be gratified and enlivened that evening by some sort of public spectacle. We further learned where the, so-called, theatre was situated, and that the performance, consisting of conjuring, was to commence at the somewhat late hour of 9 P.M. Now, no opportunity of attending a public entertainment had been afforded us in all the seven months since we had sailed from England, and it need not be wondered at that we at once resolved to patronize this one, as much for the sake of linking ourselves on with the past, and

seeing the character and conduct of the audience, as for any amusement likely to arise from the performance itself.

Betaking ourselves to the place in good time, we found a sprinkling of gentlemen gathered in the narrow apartment dignified by the name of the Theatre, and soon afterwards the whole of the female portion of the audience arrived *en masse*; whereupon the gentlemen rising, gave them the choice of the best seats, with a politeness in striking contrast to the behaviour usually witnessed in an assembly of the same class in England. The ladies were better attired than we had expected to see, in somewhat old-fashioned garments, it is true, but none the less becoming on that account; and, on the whole, the audience, which numbered about eighty persons, had such a respectable appearance, that it was difficult to believe ourselves to be in a small Amazonian town. The variety of complexions was, however, sufficient to remind us that we were far from home; for all shades were represented, from the fairness of a Swiss lady, who had come to this country, we learned, as servant to the Bishop of Pará, but had since married a native Indian, to the darkness of the pure negroes.

The orchestra, consisting of a fiddle and two guitars, now took their seats; and very little seat one of them had to take, for the cane had entirely disappeared from the bottom of his chair, so that he was obliged to balance himself all the evening on the front bar. A signal whistle sounded out loud and long, and invisible strings slowly drew back the drop scene, which was evidently by a native artist, and repre-

sented, apparently, a man offering a woman tumbling from the sky the choice of a dagger or a penny bun, while an old-fashioned table stood between them to keep the peace. The wizard himself, a tall gentleman with a hooked nose, now stood disclosed, and at once commenced the series of tricks announced upon the programme; resorting, to our surprise, to the English language for the cabalistic words at the critical parts of his feats. These deceptions were of the usual kind, and did not interest us greatly, but the audience greeted them with liberal applause. It was twelve o'clock when we returned to the 'Beija Flor,' and very soon afterwards were resting in our hammocks.

Our slumbers lasted only until 4 A.M., for at that hour a considerable noise and bustle arose on board the launch, and speedily aroused us all. The Amazon being now in flood, and continually rising, a large number of patches of coarse grass, or capinga, washed out from the banks and retired pools, as well as much timber, floated on its bosom. Some of the patches were small, but others were nearly an acre in extent, and as the current set in towards Villa Bella, many of them passed close to the cliff upon which the town stands. Cattle are very fond of the grass, and may often be seen wading out into the stream to secure a mouthful; but it is a great nuisance to the owners of boats and barges, often sweeping these craft from their moorings. To guard against any accident of this kind, the 'Beija Flor,' besides being anchored, had been fastened to the shore by a stout rope at the bow and another at the stern. But these precautions proved unavailing; during the night a floating island

had caught upon our bow, and gradually wedged itself between us and the beach. The bow line could not stand the ever-increasing strain, and, as soon as it had given way, the anchor dragged. So quickly does the shore shelve, that this was soon hanging in deep water, where it could not touch bottom; and we were awoke just in time to see the stern rope snap, as the 'Beija Flor,' now fairly adrift, started down stream. Fortunately the grass acted as a buffer, and kept the launch from the rocky headland projecting into the river a little below the town; but at the same time it pushed us out into the middle of the current, where, as there was no steam up, nor any fire in the furnace, we were perfectly helpless. It was a difficult matter to get clear of the grass that had wrought the mischief, for the anchor could not be drawn through without cutting a way for it. To do this a man was obliged to risk himself upon the floating island, but it easily bore up his weight, so dense was the mass, without letting him sink below the waist. Round and round, the river swirls carried us like a teetotum, as we sped along at the rate of four miles an hour. Happily there was no danger in such a broad sea-way, and the engineer and fireman displayed unusual energy in getting up steam, so that at the end of two hours we succeeded in getting back to our anchorage, none the worse for our involuntary cruise, except that our rest had been broken somewhat before we wished; but, in our mode of life, this was a circumstance to which we had become accustomed.

On our return we learned that the steamer we had expected had passed on during the night without

stopping, and, much disappointed, we hastened to bid farewell to Villa Bella, and resume our voyaging. Little need be said about the remainder of the day—a most disagreeable one. Heavy rain set in, rendering it necessary to pull down the curtains to shelter ourselves from the drift; consequently we could see nothing, but sat stewing in almost unbearable heat. Crossing the Amazon to the mouth of the Mocambo channel, we continued our journey along it, until we emerged during the afternoon, once more upon the main river. At Pinery point commenced a district which it was necessary for us to explore, and as the weather had now improved, we landed and climbed to the top. It is a boldly projecting headland with a gradual grassy slope on the eastern side, and an abrupt precipice on the other, from which we looked straight down into some considerable whirlpools in the sharp bend of the shore. Beginning where we stood, and stretching onward far up river, were the picturesque cliffs of the Cararaucu Barreiras. That night we anchored in the sheltered mouth of Paura Igaripé, not far from Pinery, where we suffered much from mosquitoes, but were safe from the dangers attending the grass islands.

Rising to a height of 200 feet in some places, richly coloured everywhere in bright tints of yellow and red shading into crimson, and haunted by large flocks of kingfishers, the Cararaucu cliffs present an attractive appearance, and impart dignity to this portion of the Amazon. Here and there they are broken by gaps, which are found to communicate with lakes embosomed in low hills, most of which were entered and explored

by us. The largest is named after the Barreiras, and has two narrow arms, each about three miles in length. The inhabitants expressed themselves to the effect that it was "an admiration" to see the 'Beija Flor' turn into their lake, for no steamer had ever visited them before, but they were puzzled to know how she was propelled. The paddle-wheel steamers passing up and down the Amazon were familiar to them, and their action easily understood; but a vessel worked by a screw had not come under their notice before. Some of the Indians stretched themselves out flat upon the flange of the launch outside the bulwarks, and hung over the water, peering into its depths to try to fathom the mystery; while others were similarly occupied in their boats and canoes. The thing seemed to be about as insoluble to these simple people as was the nature of our proceedings, when taking observations of stars that evening, to the pigs who stood round in a semicircle on the shore to watch the business.

Two days were spent in this district, and another two in getting to Serpa. Very little of the Amazon was seen on the voyage, for the 'Beija Flor' took the route of the Capella and Silves channels. In the former a little settlement of the same name stands on a steep bank at the mouth of the Uatima river, and, with its row of newly built houses facing the water, presents a neat and somewhat flourishing appearance. The church, however, sadly needs restoration to enable it to compare well with the village itself. Marabuntas have taken entire possession of it, building freely in every part, and great nerve must be required to

worship there undistracted. One would enter the gallery, or the pulpit, at the risk of his life, not only on account of the numerous wasps' nests infesting the stairs, but also on account of the ruinous character of those structures, which have already parted so far from the walls that the least weight would detach them entirely, and bring them down with a crash.

Our stay at this little place was prolonged beyond our intention by the craft of an old Jew, who, when asked if he had any fresh provisions to sell, replied that he could offer us a sucking pig. He professed to send a man to fetch it, but time passed on and no signs of the porker appeared. On being again questioned about the matter, he took us out and showed us a full-grown animal; upon which we expostulated with him for representing this to us as a small roaster. His subtlety was, however, not exhausted, for he humbly begged pardon, and said that he had only asked us to look at the parent in the absence of the offspring, which having strolled into the forest, was being searched for in every direction. Again we waited, until our suspicions were aroused by observing that the Jew was continually going over to the 'Beija Flor,' and talking earnestly with Captain Mamedé. The truth then came out that he was bargaining for a passage to Serpa, but required time to put his things together, and had invented the myth of the little pig for the purpose of delaying our departure. As soon as we had discovered his devices we hurried on board and left Capella.

A short excursion was made up the Uatima, which presented no features of interest, and a pleasant

glimpse was obtained of the Silves lake, in which is situated the town of that name. From its mouth we journeyed direct, in very rainy weather, to Serpa, where notice was at once given to us that no one would be allowed to land until the 'Beija Flor' had been duly inspected by a Custom House officer; for this small place, situated on the banks of the main Amazon, is near the confluence of the Madeira river —the great highway into Bolivia. Happily our desires to stroll through the streets of the town were not sufficiently ardent to make it any very great hardship to be compelled to wait, while that official went through the somewhat lengthy process of arraying himself in a black coat and waistcoat, adorned with buttons of bright green glass, and crowning his head with a chimney-pot hat—an uncomfortable costume in these regions, which plainly testified to the solemnity of the occasion. However, the gentleman was exceedingly polite, very civilly took our word for it that there was nothing of a contraband nature on board, and, after awing us by an ostentatious display of a gold watch, betook himself to the shore again.

We were now free to follow him, and a very short turn enabled us to see all of interest that Serpa had to show. The town occupies high ground, presenting a steep face to the Amazon, rough with iron-cemented rocks at the eastern end, but grassy elsewhere. As the river was nearly at its highest flood level at the time of our visit, the cliff was only 30 feet in elevation, but in the dry season it is as much as 57 feet. We were not able to see the rocks on the beach, inscribed with Indian picture-writings, which gave

the old name of Itacoatiara, or Painted-stone, to the place, for these were now submerged. It is a mistake to suppose, as more than one traveller has alleged, that the title was derived from the bright colours in the cliff section, for these do not exist.

The town is scarcely as regularly built as most Amazon settlements, for the houses facing the water are less straight and regular than usual, and a street turns off at an acute angle leading down to the margin of a small lake. We were surprised to see that the Custom House employed *four* clerks, and wondered how occupation could be found for them. The municipal building was a great curiosity, for the whole of the front had fallen out; notwithstanding which a gentleman was occupying one room, calmly seated at a desk writing. It looked like a child's doll's house with the front removed for play.

Next morning the arrival of the Geological Commission was set forth and announced to the world in the Serpa newspaper—a tiny sheet called the "Itacoatiara." It is about the size of a page of foolscap paper, is issued twice a week, and sells for a sum equivalent to nearly sixpence in English money. The news to be found in its columns is strictly of a local nature; but inasmuch as the record of events happening here would not nearly fill it, a large portion of its space is occupied by a highly sensational tale, in which the interest is well sustained by numerous notes of admiration and interrogation.

Before leaving Serpa, a few days were spent in exploring the lake and high land to the westward. The Lago do Serpa is a pretty sheet of black water

some two and a half miles from the town, lying in a general N.W. direction, and having a width varying from a quarter to one-half mile. Its sides are indented with numerous deep bays or arms, and it is surrounded by high ground, rising in some places to 50 feet above its level. It appeared to have no current, though, at the time, a considerable body of Amazon water was flowing through the narrow winding channel by which we had entered it in our montaria. This channel will only admit of the passage of boats when the Amazon is at a certain height, for the ordinary outlet of the lake is, we were told, at the other end, where it joins the Silves Parana-mirim. From the quantity of mud-coloured fluid it was receiving, the water was then turbid at its southern end; but the particles held in suspension have time to subside in the still water of the lake, so that it gradually becomes clearer as one advances, until, at a distance of two miles on, it loses all signs of turbidity.

When it became necessary to wood the 'Beija Flor' for the continuance of her journey, the people, instead of bringing the logs in a large boat, which would have been quite sufficient for the purpose, fetched out the immense batelõe used by them to take fuel to one of the great steamers of the Company. This unwieldy craft was towed alongside with great toil, and completely dwarfed the launch, outspanning her in length, and overtopping her in height. The comparatively small amount of wood required looked a mere handful in the vast hold, and was got up from its depths, and down again to the deck of the 'Beija Flor,' with a

fearful amount of labour. At the close of the day, her burden discharged, she was dragged back again to her moorings. Some one sportively named her the "Fighting Téméraire tugged to her last Berth" when suddenly there flamed out, as the appropriate background, the most brilliant sunset imaginable. It was perhaps too gorgeous to be beautiful, for the display was too dazzling to admit of any delicate gradations of colours and tints. The whole sky was a mass of fleecy cloud of the brightest crimson, under which the Amazon waves rolled onward like blood, and even the forest-clad shores assumed a reddish blush.

## CHAPTER XV.

### ON THE MAUHES AND ABACAXIS.

The Ramós Parana-mirim — Enter the Mauhes River — Mauhes Village — A Guaranazal — Guarana — Mucaja Aldea — Mundurucu Indians — Different Phases of the River — Laranjal and its Inhabitants — Pacu-assu Cataract — Sketch Geology of the Mauhes — The Botanist meets with an Accident — Ball at Mucaja — "Caracajas" — Frighten the Inhabitants of Camarão — Run some Risk of being Blown up — Senhor Rosa — The Abacaxis River — Our Mundurucu Pilot — Incidents in connection with Three Old Men — Our Dinner at Abacaxis — Flights of Mayflies — Unfortunate Thrushes.

LEAVING Serpa a little after mid-day on April 25th, we steamed down the Amazon, and in three hours arrived at the head of the Ramos Parana-mirim, which we entered. This channel, having a width of 300 yards, carries a portion of Amazon water away through a low-lying plain far from its main course, to which it eventually returns at a short distance below the town of Villa Bella. It is joined, not many miles after it leaves the Amazon, by a wider channel, having various names in its different sections, which flows from the Madeira river at a distance of fifty miles from its mouth, and receives on its way the waters of the Mauhes, Abacaxis, and Canumá rivers. This latter Parana-mirim, here called the Mauhes channel, is about 600 yards in width, and runs a very tortuous course.

When we reached it we turned up stream against its strong current, and steaming along all day, arrived late in the afternoon at the mouth of the Mauhes

river. Here our eyes, weary of gazing on the monotonous parallel-sided Parana-mirim, with its low and partially flooded banks clothed with luxuriant foliage, which became tiresome by constant repetition, were relieved by a complete change of view. Leaving the muddy channel, we turned south, and entered upon the black-looking, though pure, water of the Mauhes, feeling thankful for the change.

Just inside its mouth, the river opened out into a lake-like expanse, with deep indented bays here and there, and islands in the distance. Nestling on the right bank off these, in a bright green open area, some two miles on before us, was the village of Mauhes; the whitewashed houses of which gave it the appearance in the distance of being a very pretty place. It need hardly be said that it did not keep up this pleasant illusion when closely approached—no Amazonian town ever does. At 6 P.M. we dropped anchor close to it, creating quite a sensation amongst the inhabitants, who turned out to look at us, wondering what could have brought our launch to their port. Three well-dressed men came on board, and inquired the object of our visit. One being the Subdelegado of the town, we applied to him for a guide or pilot, who was acquainted with the river. From our anchorage we looked upon the back yards of the houses in the main street, which, contrary to the general rule, faced inwards instead of towards the river.

Next morning we landed, and took a walk through the village, which we found to be irregularly laid out, and though not so large as Serpa, still somewhat resembling it in character. Its streets are neat and

clean, and its houses well built. It boasts of a church, and has the usual large cemetery, surrounded by a high wall, situated on the sloping forest's edge; staring in the face of the townspeople as if inviting them to come and lay their bones to rest there. A good strong prison, guarded by soldiers, stands near the middle of the village, and had at the time a large stock of inmates, amongst whom were some murderers.

The Subdelegado sent his son, a good-looking young man, to be our pilot, and we started on our journey—first crossing to the opposite side of the lake-like expanse of river to see the *Guaranazal*, or *Guarana* plantation, of a certain Captain M——. The Subdelegado accompanied us, and introduced us to the Captain, who was a tall strongly-built man, singularly dressed in a loose shirt and trowsers, made of blue calico, dotted over with a pattern of white leaves. He bade us enter his house and sit down, showing us into a room having a back, front, and two side doors. The latter gave admission into similar chambers on either hand; and of five such chambers ranged in a line was the house composed. An old unclerical-looking man then came forward, and was introduced to us as the Priest of Conceicão.

The village of Mauhes, like most small towns on the Amazon, rejoices in a variety of names, and is called indiscriminately Mauhes, Conceicão, or Santa Lusia.

It seemed to be a gala day at the Captain's, for a party of well-dressed people came over in a boat from Mauhes; and in one room we saw a number of well-dressed Indian-looking ladies.

Our host very kindly took us through his guarana plantation, where the shrub of that name was regularly planted. It bears a curious red fruit, with three seeds inside, which when ripe are pounded in a mortar and dried in shapes, where they become hard and resemble long, straight, brown sausages. This substance, called guarana, is grated into powder when required for use; and a teaspoonful, mixed in a tumbler of water, when sweetened, produces a very grateful, cooling drink, which has the effect of allaying nervous headaches. Guarana is imported into Europe, and is there employed as a medicine. It is, however, chiefly used in South America as a drink, having similar effects upon the system to those produced by tea and coffee, and commands a high price in the market. Upon the banks of the Mauhes it flourishes, and there is more extensively cultivated than in any other part of the country.

We were also shown many useful forest trees that the Captain had planted—trees producing valuable fruits, oils, and gums.

Like many other people we had met at the mouths of rivers, the Captain warned us against the bad fevers which float about the vicinity of the Mauhes falls, and said that brandy and cachaça were the best preventatives against them. At Obidos we were likewise told that fever abounded at the first cataracts on the Trombetas, but fortunately we did not meet with it.

Bidding adieu to this gentleman we steamed away up the river, which resembles the Tapajos on a small scale, being of great width and of lake-like proportions. High land rose gradually from the water's

edge on either side, which was all densely covered with forests. The average width of the river is about two miles, and in many places its sides are indented with deep bays and arms. One or two long white sand beaches were to be seen bounding its shore, but at the time, owing to the height of the river, most of these were covered with water.

In the afternoon we passed the mouth of a large branch river called the Rio Pareka, coming in on the left; and, not far on, landed at the Indian aldea of Mucaja, situated upon high level ground presenting a cliff to the river. It is what is termed a Mundurucu village, from its inhabitants being civilized Indians of the Mundurucu tribe. They were once a wild and warlike people, noted for disfiguring their faces, arms, and chests, with blue tattooed patterns of great intricacy; but are now reduced by civilization to the level of the ordinary Tapuyu of the country. Some twenty high mud-walled thatch-roofed houses and a church form the village, which at the time of our visit was but sparsely inhabited. A small flock of sheep, and some fowls and turkeys, roamed over the open grass area about the village, none of which could we induce the owners thereof to sell.

After getting the village head man to promise to have some firewood cut for us by our return, we went on, and anchored for the night in an arm called the Jacunda; where, from the open space in front of an uninhabited house, the Chief and Engineer, whilst procuring altitudes of stars, took in their toes a goodly stock of jiggers, which they did not discover until the following morning.

From this on for many miles the river assumed a new phase, by losing its lake-like character, narrowing considerably, and flowing in channels between long, curved, tree-clothed tongues of land; which running in spits from alternate bends parallel to its banks, formed perfect *cul-de-sacs*, called *resacas*. It was only by carefully noting the existence of a slight motion in the water, denoting its flow, that we could distinguish the difference between the mouth of these blind channels and the true river; and although our Captain worked his steamer carefully, we were once or twice partially entrapped by them. Of these tongues only their tree coverings stood above water at the time, but when the river is low they are probably either sand spits, or land fringed with sand beaches.

Upon arriving at a large house with neatly kept grounds, called Laranjal, where some twenty Mundurucus lived, we got a guide, as the river had now become most puzzling with its blind channels and numerous islands. We were rather disappointed to find that, like the Mucaja Mundurucus, these people were not tattooed, nor pleasing looking either, though a very friendly and worthy lot.

They liberally presented us with oranges, pumpkins, and fruit of the Pupunha or Peach palm, remarking at the time that they were sorry they had "nothing whatever to give us." One of them—the head man—told us that they had fled to this place twenty years before, in consequence of getting into some trouble at a rebellion in Santarem; and added confidentially, "my brother, you know, is a little silly,

but I am used to him." It is only right to say that the brother appeared to be quite sane, and that it was merely a peculiarity of the elder, to imagine that the younger was at all insane. They asked us if we would like to see the females of their family, and on our assenting ordered them on board. An elderly woman and three young ones, dressed in the material known in England as "workhouse blue," appeared upon the scene, and stood like culprits with their eyes cast down to the deck. It was impossible to engage them in conversation, and they appeared to be glad when allowed to return to the shore.

Next day, in passing close to a house—one of the few buildings we might say on the river's bank—we saw a woman with a beautiful blue tattooed chin and lower jaw; none of your bars and patterns, but all made solidly blue. How strange and ghastly she looked; and how perverted must be the taste of the members of this tribe who look upon such disfigurement in the light of personal adornment!

During the forenoon of the day following, the one in which we stopped at Laranjal, the river entered on another phase, by narrowing to one-eighth of a mile in width, losing its tongues of land and islands, and flowing in a single tortuous channel. High wooded slopes, which bordered it at some distance back lower down, here closed in, showing in places precipitous fronts composed of red clay and sand; first on the east side, then on the west, as the river flowed alternately on either side of its valley. These general conditions, with the exception of the further narrowing of the river, remained in force until we reached the

foot of the first cataract, called Pacu-assu; which was nothing more than a strong rapid, owing probably to the height of the river; but at the same time formed an effectual bar to the further progress of our launch.

Upon our last day's journey, before arriving at the fall, we passed all the recent deposits forming cliffs on the river's edge, and arrived at that part of the Amazon valley on the south, where sections of the old underlying rocks are exposed. These first met with were composed of red and grey shaley sandstone; while at the second exposure they were of beds of carboniferous limestone, dipping N.E. at a gentle angle. Then came false bedded, soft, white, and pinkish sandstone; and finally, friable, purplish, horizontally bedded sandstone, at the fall itself.

There were long breaks between each section, where cliffs gave way to densely wooded slopes, which quite prevented any attempt at working out the sequence of the strata. The height of the river also obscured many feet (probably forty) of the lower portion of each section, and placed an insurmountable barrier to the proper study of these interesting rocks.

The same disagreeable conditions were in force upon the Trombetas and Tapajos rivers, on the occasion of our visits to them. We were, however, able to see enough, in order to identify the rocks met with on the branches to the north of the Amazon, with those on the southern side; all, in fact, but the limestone, which, unfortunately, was not seen on the Trombetas. There is no doubt that it there exists, and would be met with when the river is low, before reaching the black shale district.

We were told by Dr. B—— that he had found it on the Urubu river, a branch of the Amazon, not far from Serpa.

If there are no serious faults in the strata, there is little doubt but the black shale lies beneath the limestone; and that the Amazon river flows, in this portion, in a synclinal trough in Palæozoic rocks.

The interesting district of Monte Alegré contains all these formations, and holds the key to the geology of the Amazon.

In returning a day was spent some twelve miles below the fall, while our men were cutting firewood on the edges of a clearing near an uninhabited house. This domicile was well built and neatly roofed, and only temporarily abandoned. Stuck under its eaves were the skulls of small animals and birds, whose original possessors had been killed and eaten by the dwellers in the house. This custom of preserving the solid remains of a repast is common enough amongst Guiana Indians, but was never observed elsewhere by us in the valley of the Amazon.

On our way down river we landed at the house of a Mundurucu Indian, a sketch of whom, along with that of his wife, appears in Professor Agassiz's work on the Amazon. The poor fellow appeared much cast down, having lost his wife only a few days before. His head had been shaved, and was bound up in a handkerchief, to relieve the pain of a headache from which he was suffering; and, thus adorned, his blue tattooed face had a most ghastly look. A little boy who was in the house, had his face stained of

a black colour with the juice of some berry or other, and, from the stains having been applied to certain parts of it in imitation of the tattoo-markings, we concluded that a trace of the former habits of his race was cropping up in the lad. The females did not appear at first, but remained in a closed room until we were leaving, when, their curiosity getting the better of them, they turned out to see our steamer off.

The afternoon of the day on which we got back to Mucaja, an accident occurred to the Botanist, which, for a time, caused us intense anxiety, but, most providentially, terminated harmlessly. The canvas curtains, which on one side had been let down to keep off the afternoon sun, prevented our seeing at first what had happened, when we heard a heavy splash. We, however, felt sure that some one had fallen overboard, and, rushing aft to the stern, saw Mr. Trail struggling in the water. As good luck would have it, William, and Angelo one of our men, were at the time washing clothes in the montaria, which was towing astern; and, on our casting off the boat's painter, they seized the paddles and pulled back towards him as hard as they could. The launch's engines were promptly stopped, and then turned astern full speed; but the way she had on was so great, that we had left the boat far behind before she was brought to a stand-still, and began to obey the reversed engine. We felt our utter inability to render assistance most distressingly, and would have given much to have been pulling in the montaria at the time; but had we

attempted to have hauled it close up to the steamer, in order to jump in, when letting go the painter, much valuable time would have been lost. Besides, the two men in it were well able to perform the duty required of them. Knowing that Mr. Trail could only swim a little, having but commenced to learn since we came to the Amazon, we greatly feared that, weighted with his clothes, he would have been unable to have kept up until the boat reached him. In a short time, which seemed an age to us, we saw the boat stop and take him on board, when the painful tension on our nerves relaxed, and we breathed freely again.

When our companion arrived once more in our midst, he told us that he had been standing on the ledge outside the bulwark, engaged in trimming some small palms before putting them to press, when he lost his balance and fell over, but how he came to do so he could not tell. The river being calm at the time, and hardly any current running at the spot, which was at least half a mile from shore, he was enabled to keep up longer than if there had been waves. By the time the boat reached him, which was certainly not long, he was nearly exhausted, but kept up his pluck manfully. Congratulating him upon his return amongst us after the danger he had run, we administered a glass of brandy to him, and he was himself again.

There was a dance going on in one of the houses at Mucaja when we arrived there, to which, after finishing our star-gazing, we went—not with any intention of joining in the revels, but merely to look on for a time. The members of the band which played, and also sang

tunes having a mournful ring in them, deserved much credit, for their instruments were of the roughest and most primitive kind imaginable. There were two drums, made of long hollow logs, with skin stretched across one end only, upon which the drummers performed as they sat straddled legs upon their reclining instruments. A third implement, called a caracaja (tiger cat), was certainly a most primitive-looking thing, made of a short piece of bamboo, serrated on one side. The man who played upon it rubbed a short piece of hard wood vigorously across its notches, producing a rattling sound, and keeping time with the drums. The fourth instrument was a common banjo, which does not require any description. There was only one light in the large room where the festivities were held, emanating from the wick of an ancient oil-lamp of most rude construction, consisting only of an earthen bowl containing oil, in which lay a twist of cotton, whose lighted end hung over one side. In one corner sat the ladies who were not dancing, some thirteen in number, sleepily smoking their long pipes, as seen in the portrait of one shown on the next page; while many of them held their young children in their arms.

The gentlemen sat on benches placed round the walls, and across the middle of the room.

When we entered a couple were dancing a fandango, and when that ended the company danced in a circle, holding hands, while one placed in the middle tried to break through. Then they performed a second circular affair, which terminated by the men all joining hands

behind the ladies' backs, while the latter put an arm out on each side round the former's necks; then to the tune, as they danced round, they all stretched apart hoisting the ladies off their feet. The latter in their turn, taking hands, tried to perform a similar hoist to the men, but failed; and the dance terminated midst much laughter. Fandango dancing being resumed we left and went on board.

LADY AT THE BALL.

Taking in the firewood cut for us by the Mucaja people, we steamed on down river, landing and examining many places, besides exploring a creek called Ronaldo-do-Cruz. Being in the vicinity of a place at dusk called Camarão, where there was an open space from which to take altitudes of stars, we anchored off it for the night. Our young Subdelegado guide told us that the sole occupants of the place were two women—an old and a young one; but all we saw there, in looking up from our steamer's deck, in the shape of living beings, were two dogs engaged in barking at us. The house was situated upon the top of a cliff

some ninety feet in height, and was approached by steps cut in the clay composing the cliff's face.

Late in the evening we went ashore in the boat to take astronomical observations, and as we were in doubt as to the reception we should meet with from the ladies, who might oppose our landing, the Engineer with the boat lamp as a sort of flag of truce went first; while the Chief carrying the sextant and artificial horizon brought up the rear. We concluded that, should we be fired upon on scaling the steps, the lamp would be aimed at; and should the Engineer fall a victim, at any rate the instruments would be saved. Reaching the top of the cliff we found the house wrapped in darkness, with no signs of anyone about. Whilst arranging the instruments preparatory to taking our observations, we heard the muffled bark of a dog proceed from the house, but as it was instantly hushed, we felt sure that it was the ladies who suppressed it. What the poor creatures imagined we were doing can never be known; but that they had seen us by the light of our own lamp, through cracks in their house, pour out the mercury into our artificial horizon, and then gaze skywards through a brass, spider-like instrument, cannot be doubted. Naturally enough they would suppose that we were holding converse with some mysterious star spirits, or performing a species of witchcraft, and were dangerous customers. However that may be, we infer from the result that they dreaded us, for after we had got on board again and settled down for the night, they were heard to take to their boat, and make

quickly off, paddling down along shore. Goodness knows where the poor scared creatures went, dogs and all, that night; but to them it was evident that out on the dark river, or off to a neighbouring house, was better than staying at home, whilst that mysterious steam craft, with its strange, unearthly crew, rode at anchor off their premises.

After one day spent in exploring the Camarão and Limão branch rivers, which are lake-like with many wide arms, being in fact the Mauhes in miniature, we arrived at Conceicão; and next day re-entered the Parana-mirim leading to the Madeira river, which in this portion is called the Abacaxis channel. Steaming up against its strong muddy current we arrived, early in the afternoon, at a small fasenda on its bank, where the ground is elevated a few feet above the highest floods, and there stopped in order to trade with the owner for a cow, as it was highly necessary to replenish our stock of meat, then reduced to a small quantity.

The owner of the place, an old well-to-do Indian, immediately offered to sell us one for forty milreis (about 4*l.* 8*s.*), and with this we at once closed. Soon after our crew were seen, along with some cattle-minders of the fasenda, armed with lassoes, tearing madly over the place after a small herd of cattle, a member of which they eventually lassoed and brought in. Very quickly and neatly was the poor cow killed, skinned, and cut up where she lay. Then the meat was stripped from the bones, divided into thin flakes, rubbed with salt, and placed in our beef-kegs.

Whilst this work was progressing we had some conversation with the owner of the farm, who confirmed what we had heard from the Mauhes Subdelegado, about the annual raids made by the Mundurucus upon the far interior tribes inhabiting the upper parts of the Madeira, Purus, and other rivers. He said that between the months of June and July, these Mundurucus assemble together, and march off through the forest to the above-mentioned rivers, where, coming upon their enemies, a fight ensues, in which they are invariably successful. We inquired the reason of these raids, because to us they seemed to be both cruel and senseless, and were told that they were undertaken in order to *civilize* the savages, and give a vent to the martial spirit of the Mundurucus.

By the time the salting operation was over, it was quite dark, so we remained made fast to the clay bank, off the fasenda. We may here mention that its name was, "Barreiras do Bom Estade do St. Domingo," and yet we slept well that night!

Another day and a half of slow steaming, produced by bad firewood, brought us to the mouth of the Abacaxis river, a black-water sheet like the Mauhes, flowing in on the south. On the way up, the only incident that occurred which made any impression on our minds was one that might have had a very serious result. When our launch was made fast for the night the evening after we left the fasenda, our engineer was told by the Captain to get steam up at daybreak next morning, instead of which he, in a most unaccountable manner, lit his furnace fires at three o'clock in the morning, and soon after fell asleep.

Fortunately one of the party happened to awake, and hearing the roaring of the furnace and hissing of steam, but seeing no one in attendance, could not make it all out. He therefore rose, and taking the engine-room lamp looked at the steam gauge, which to his horror was standing at over 60 lbs. pressure. It was not many seconds before the engineer was roused up, and had opened a valve to let off the steam, while the donkey engine was set going to pump more water into the boiler. Had things gone on as they were, a little longer, the boiler must have burst, for the water in it was being rapidly boiled down, and would soon have been in a fit condition to be turned suddenly into steam, when up we should all most assuredly have gone.

Entering the narrow mouth of the Abacaxis we stopped at the village on its eastern side, close to its junction with the channel we had just quitted, in order to purchase furnace wood, a goodly pile of that article being stacked there. This belonged to a Portuguese merchant, a Senhor Rosa, to whose house we went on landing, and by whom we were most cordially received. He was generosity itself, presenting us with a piece of venison, some fowls' eggs, sticks of guarana, rods of native tobacco, tapir sausages, peixe-boi steak, and a bowl of assai beverage, besides giving us a cup of coffee each as we sat and conversed with him. He came to this place in 1837, and has resided in it ever since, making one journey to Lisbon during the time, and constant trips to and from Pará. He accompanied us round the village, and took us to see some tattooed Mundurucus One of these men,

whose face and neck were so closely covered with blue lines, that they all looked of one uniform bluish colour, he induced to show us the tattooing on his body, which was composed of most regular lines crossing each other diagonally, commencing at a ring round his neck, and terminating at another round his waist. In fact, it looked somewhat like the imprint of a Guernsey shirt upon his skin. Some of the women had blue chins and cheeks, with a ring round each eye, from which a line led along the side of the face to the top of the ear, making them look as if they were using spectacles; while a few had angular holes cut in their ear lobes. Senhor Rosa sent some of the men to pick oranges for us, saying, that he knew Englishmen were fond of that fruit; and in a short time they returned with about a bushel, which were duly transferred to our ship.

The village is small, having only one street, with houses in a most dilapidated state, and a church which is rapidly falling into decay. A fine flock of sheep, seen browsing about the village, was the property of the Mundurucus, who, strange to relate, never sell or make any use whatever of these animals.

We invited Senhor Rosa to dine with us and take pot-luck, which meant salt beef and potatoes, with tinned meat if requisite. We say if requisite, but with us it seldom was, for we never troubled the greasy contents of tins when newly salted beef was to be procured. He accepted our invitation on condition that we would allow him to have his own dinner brought on board, as an adjunct to ours; and a splendid adjunct it was, consisting of venison, maam,

curri-curri, and cabbage. In the event of a reader not being acquainted with tropical game and vegetables, we will state, that the venison is obtained from a small forest deer; the maam is a full-breasted bird of most delicious flavour; the curri-curri is a bush ibis, not unlike a curlew in taste; and the cabbage is a cabbage without a head. A small crowd of villagers sat on the wood pile on shore, and for a time watched us feeding, but a heavy thunder and rain storm coming on they dispersed, while we, having to let down our awning curtains, were nearly smothered by the heat during the latter portion of our sumptuous repast.

Senhor Rosa kindly procured us an Indian guide for the Abacaxis river, who came on board next morning neatly dressed in a white shirt and trowsers, and crowned with a tall, creased, chimney-pot hat, which, placed jauntily over his blue tattooed, stolid countenance—a countenance that seemed incapable of being moved by any amount of joy or grief—gave him a most ridiculous appearance. We then started up river, steaming as far as we could go in one day; and next morning commenced our return, being occupied for two days in examining the adjoining country on our way down.

A short description of Abacaxis river, owing to its somewhat peculiar features, may not here be out of place. Its mouth has a tree-covered bar, extending from its western to within 300 yards of its eastern side at the village, inside of which it has a breadth of three-quarters of a mile. At a distance of two and a half miles to the southward, it suddenly expands into

a sort of lake of varying width, but generally about two miles across, which ultimately narrows, becoming lined with curved, tree-clothed tongues of land, like those on the Mauhes. A large branch, called the Marimari, joins it on the west not far from its mouth, and it has numerous deep bays bordered by *igapo*. Where the elevated land comes to its edge, it frequently shows sections of from five to thirty feet in height, composed of red and yellow clay cliffs. Its banks are very sparsely inhabited, and all the surrounding country is densely wooded. In the dry season, when its waters are low and vast sand beaches are exposed, it must be a singularly pretty river.

Whilst returning, we landed at many places, and where we could see a house or settlement, always stopped to take advantage of the paths which lead back from them into the forest depths. At one of these places, called Juruty, we saw our guide's father —a most singular-looking old individual, with a blue face and remarkably long down-pointing nose. His peculiar expression of countenance betokened a deep-seated melancholy, and gave one the idea that he was always on the point of weeping.

As we approached our next landing place, a canoe containing two women and an old man was seen in front, the women who wielded the paddles making most frantic efforts to reach the landing before us. The reason for this exercise of haste was puzzling at first, but soon became most ludicrously apparent, when, on gaining upon them, we saw that the aged gentleman sitting steering in the canoe was in a nude condition, though quite collected, and wearing an

expression of countenance which plainly denoted that he knew he was unclothed, that it was his pleasure to be so, and that he did not care a fig who saw him. Whilst our launch's anchor was being let go close in shore, the canoe was beached, and the women landed hurriedly. One of them rushed up to the house, and presently tore back with a shirt and trowsers, which she gave to the old chap, who was then stoically walking up with his paddle under his arm, and a large straw hat on his head. He took the proffered clothes, and, carrying them in his hand, stalked coolly up to his house, and through the midst of a knot of women and children, who seemed not to notice him, as if his get-up was an every-day affair. When we landed we found him sitting, clothed, and in his right mind, and not a bad old fellow after all.

Another old gentleman, of not quite such eccentric habits as the above, whose acquaintance we made, was the father-in-law of the Captain of the Mundurucu tribe on this river, and his peculiarity was the possession of remarkably long finger-nails, which, extending quite an inch beyond his finger ends, resembled bird's claws.

Upon our return to Abacaxis village we were welcomed back by our good friend Senhor Rosa, who, as before, most kindly loaded us with edible presents, and again dined with us, he supplying the greater portion of the feast. On the first occasion, it may be remembered, we had been incommoded by rain, while on this we were visited by a plague of large May-flies, which, attracted by our lamp, visited us in thousands, and fell by hundreds into our food. We

had to have the lamp removed, and finished our dinner in partial darkness.

These curious insects have no legs whatever, and are full of eggs. Flying about over the river they were frequently attracted by our lights, and came buzzing around it for a time. Then, seeming to lose the power of flight, they fell on the table, where they whirled about like mad creatures until thoroughly exhausted. There they lay in a quiescent condition, their eggs bursting out on both sides of the abdomen, until death relieved them of their sufferings. None that flew towards our lamps ever flew away again, but all died, leaving sometimes a layer of corpses half an inch in depth on our table. On the night in question they came in greater numbers than we had ever seen before, or have seen since, and their bodies lay in such numbers on our deck, that the steward had to sweep them up with the broom.

Bidding our friend Senhor Rosa adieu, we steamed next day into the channel by which we had come, and which from this to the Madeira river bears the name of the Canumá channel, from receiving the waters of a river of that name—a sister stream to the Abacaxis. We ran on all day, passing the entrance to the Canumá river in the afternoon, and making fast to a tree when night fell. By 7 A.M. on the following day we ran out of the channel into the Madeira river.

Whilst at Juruty lake we had purchased a pair of young birds, somewhat resembling the English thrush. They were placed in a wicker basket, when William, pitying their crowded condition, proposed to make a

cage for them of the pith of the Ita palm. Many hindrances and accidents to his work occurred, and it was not until we reached the Canumá channel that he had completed his task, when the thrushes were introduced into their new home. Unfortunately on the succeeding night, an unusual quantity of mosquitoes came on board, and settled on the two poor birds, which in the morning were found dead and bloodless beneath their perches.

The Parana-mirim by which we had come from the Amazon to the Madeira is a most peculiar one, because it is bordered in parts on both hands by elevated land composed of red loam and clay—a deposit of much greater antiquity than the alluvia of which recent Amazonian banks and islands are formed. A great deal of the land on the north side of this channel, stretching away to the great river, is of recent alluvium, but that portion of it near the Madeira is all of the older deposit. As this high land cannot therefore be looked upon as a delta, at the mouths of the Canumá, Abacaxis, and Mauhes rivers, it makes the origin of the Parana-mirim a matter very difficult of explanation. It must have been cut through the high land at a time when the Madeira river ran at a much higher level than it does at present.

# CHAPTER XVI.

## ON THE MADEIRA.

Size and Character of the River Madeira — Borba — Festival of the Ascension — Legend of Sapukia-oroka — Difficulty with Fuel — Novel Ant's Nest — Esaltaçion — Adventure with Butterflies — Rainbow, Thunderstorm, and great Variations of Temperature — A Bad Place for Mosquitoes — Starving Crato — Plentiful Humayta — Incidents of Navigation — Savage Indians — S. Antonio — Death of Mr. Davis — The Madeira and Mamoré Railway — Unhealthiness of the District — Incidents of the Undertaking — The Doctor busy — Start for Return — Jamary — Bolivians — Lakes of Antonio — River Marmellos — Forest of the Madeira — Bird Life — Geology — Designing a Church — Centipedes — Manicoré — Discovery of an Aunt — Ridiculous situation of the Commission at Tabocal — Reach the Amazon — Peccary — Reach Manaos.

THE Madeira, though only one of the many great tributaries flowing into the Amazon, is itself larger than either the Danube or Volga, and, in fact, takes rank among the principal rivers of the world. It offers unobstructed navigation below the Falls of S. Antonio for a distance of 663 miles, and although its course is from thence for 230 miles upward impeded by cataracts, it is said to provide most of the various provinces of Bolivia with uninterrupted water communication by means of its numerous branches. So little, however, is known of the river above the falls, that the very existence of a large tributary usually shown on the maps and called the Madre de Dios, has been doubted, and is still disputed. Towards the solution of this geographical mystery nothing was

done by the cruise of the 'Beija Flor,' which necessarily terminated at S. Antonio.

It may be said, we think, without unfairness, that the Madeira, though a very large, is a very nasty river. Its water is far more muddy than that of the Amazon itself, which is quite dirty enough; and no variety of scenery occurs to break up the long monotony of its banks, or impress one portion more vividly upon the memory than another. Here and there the river washes the foot of a steep bank rising slightly above the level of the alluvial soil of the valley, but nothing like a hill is to be seen below the first cataract. Mosquitoes swarm on it, and there is no regular trade wind to moderate the temperature. Like the Amazon, it holds on its way with such a strong steady flow, and apparently with such an earnest purpose, that it is seldom seduced into devious windings, delighting rather in straight canal-like reaches between parallel forest-covered shores; but it wants the vast proportions of the main river to give it sufficient dignity for impressiveness. It is only fair to say, however, that many persons must regard the Madeira as a desirable place of residence, for numerous villages and fasendas are found along its banks, occupied principally by Bolivians of Spanish or Indian extraction.

It will be remembered that we had emerged upon the Madeira, in the early morning, from the narrow Canumá channel, at a distance of fifty miles from the river's mouth. On the afternoon of the same day the 'Beija Flor' cast anchor at Borba, the most important settlement on this great tributary, and, in fact, the

only one which by any stretch of courtesy may be called a town. Unlike most of the places on the river, and on the Amazon, it does not face the water, but chooses rather to look in upon certain enclosed weedy spaces, believed by the inhabitants to be streets and squares—a preference which gives it a dull and even mournful appearance, for in this way the animation that might be imparted by passing boats and steamers is sacrificed. The church is a large building, in course of construction or alteration, presenting, at the time of our visit, a strange-looking mixture of substantial stone towers and unsubstantial walls of palm thatch.

Borba has a resident priest, and adjoining his house is a small chapel with an open space before it, on which we observed, as we sauntered through the town, a number of people collected together. They were engaged in hoisting a pole, decorated with garlands and a white flag, under the supervision of the ecclesiastic himself, in preparation for the celebration of the Feast of the Ascension. He was a pleasant and even jovial-looking young man, and no sooner had he observed that there were strangers watching the proceedings than he advanced with great politeness, and invited us to join the dancing party about to assemble at his house in the evening.

Such an invitation was not to be refused, and after attending to the essential business of fixing the exact position of Borba by observations of the stars, we hastened towards the scene of the festivities. It was no easy matter to find our way in the darkness through those weedy streets, full of traps for the unwary in the shape of pools and quagmires, concealed

under the rank vegetation, but it was at last accomplished, just as an illumination of rude and tiny lamps set on split sticks round the garlanded pole had died out. Service had been held in the chapel, and now the dance was commencing in the house, whose doors stood open to the general public. A front room was reserved for the dispensing of refreshments, and the ball was enjoyed in a long but narrow back kitchen, open on one side to the air, and on the other tenanted by numerous pigeons roosting in their cots. At one end stood the spectators, consisting of a mixture of all races, classes, and ages, in picturesque undress; and round the remainder of the apartment sat the ladies and gentlemen of Borba, in the very uninteresting costumes of Europe, ready to join in the dance. The priest played the part of host remarkably well, moving about among his guests with a pleasant word for everyone. Polkas, quadrilles, and the like familiar movements were the order of the evening; and very tame and commonplace did they appear, after the lively performances of the Indians which we had been privileged to witness. A perfectly upright gentleman led the various movements, giving notice in a dry official voice—the intonation of which yet lingers in our ears—what was to be done next. The festivity was still proceeding, although the hour was late, when we started to scramble back, as best we could, through those terrible streets to our home on board the launch. Had we stopped again at Borba on our way down river, it was our intention to have gone up in a body and pressed that jolly young priest to come down and dine with us, but circumstances did not permit.

The next day's journey was to a village called Sapukia-oroka, consisting of about thirty poor houses, stretched out in a straight line along the top of a bank of stiff clay, which a heavy shower had made almost as persistently adhesive as glue itself. A legend is told about this place to account for its name, not, perhaps, more silly or improbable than such stories usually are. Near the site of the present settlement, it is said, stood a former village, the inhabitants of which were so notoriously wicked that the ground gave way beneath them, and the whole place was engulfed in deep water, leaving only a little bay, surrounded by nearly perpendicular banks, to mark the scene of the catastrophe. The founders of the existing village, whilst engaged in erecting the first houses, distinctly heard a cock crowing beneath the waters at this particular spot, from which circumstance they named the place Sapukia-oroka, signifying, in their language, the *Lingoa geral*, a "Keeper of fowls."

It had been necessary to take in wood here, but the new supply proved to be of very indifferent quality, and this was only the commencement of our troubles in the matter of fuel. Nearly all the wood purchased on this river was of a kind affording very little heat in the process of combustion, owing, we were told, to the marshy nature of the soil in which it had been grown. Now the current of the Madeira is, as we have remarked, strong and steady, consequently a good pressure of steam was required to enable the launch to make headway against it. When, as often happened, this was not forthcoming, she was brought to a stand, and would have drifted back had not her anchor been

dropped, or a hawser run out and passed round the boughs of some projecting tree. In this ignominious situation she was compelled to wait until she had taken breath for a fresh start; and it is hard to say how much time might not have been lost in these enforced pauses, had there not happily been a small supply of coal on board to be used on an emergency. Doubtless the fault was not all in the wood, for the launch had never been intended to stem such a fierce current day after day. Just as her namesake is able to flit about with wonderful rapidity in sunny and sheltered spots, but would cut a sorry figure in attempting a long journey in the teeth of a steady gale, so the poor little 'Beija Flor' was well qualified for quiet harbour work, but scarcely fitted to do battle with the strong flow of the Madeira.

One day of slow progress from Sapukia-oroka, brought us to a large island called Araras, fourteen miles in length, belonging to the Company. Our servant William, who had long been ailing and greatly depressed in spirits, seemed somewhat better at the time of our arrival at this place, and drew forth from the cupboard, in which it had for some days been stowed away, a flute of his own manufacture, from which he had been accustomed, as he lay in his hammock at the end of his day's work, to produce a species of music more satisfactory to himself than to his masters. Great was his surprise to find that the holes upon which he had been wont to place his fingers, as well as the one at the end, had disappeared; and that only the aperture, to which he had so often applied his lips, remained. It turned out, on examination, that some

black ants had made the instrument their home, but, finding their snugness impaired by the too numerous doors, they had very patiently and carefully stopped up all but one for ingress and exit.

The next stock of wood was taken in at a large fasenda, called Esaltaçion, belonging to a Bolivian gentleman of Spanish extraction, who has cleared a large space from the forest, and is endeavouring to breed cattle for the supply of meat to the settlements of the Madeira. Near the house a new boat was being painted, in most gaudy colours, by a party of Indians. Upon our remarking that they were finishing their work well, the owner replied with true Spanish scornfulness, "Yes; though brutes, they are able to do some things fairly."

The quality of the fuel purchased at this place was even worse than that of Sapukia-oroka, and before we had got out of sight of Esaltaçion, the 'Beija Flor' was brought to a dead stand, and had to be tied up to the trees on the bank. The water of the river had begun to subside from its flood level on the very day on which we had entered it, and by this time had fallen about seven feet. Along the muddy margin thus left exposed, immense numbers of butterflies fluttered about, evincing a strange preference for these slimy-looking spots. Among those disporting themselves within a few feet of the launch, were two of surpassing beauty, upon which the Botanist gazed with a covetous eye, until it became utterly impossible to resist the temptation to endeavour to effect a capture. At this particular place the bank appeared to be somewhat firmer than at others, and bore up

fairly well the end of a plank which he had caused to be run out from the 'Beija Flor.' Advancing along this, net in hand, with his eyes still fixed upon the two gorgeous butterflies, he reached the shore; but, at the next step, the thin crust coating the surface of the mud gave way, and down he went at once to his knees. So firmly was he held fast by the tenacious mass, that it was long before he could even turn round, and his extraction therefrom was a work of difficulty. When at length he regained the deck, in a plight which may be imagined, even the poor consolation of being in possession of the two dazzling flutterers was denied him, for they still spread their gorgeous wings to the sunlight upon the shore—not butterflies at all, we suggested, but mischievous sprites bent on luring him to destruction. To complete the incident, scarcely had Mr. Trail got on board, when one of the sailors, who had been leaning forward, greatly interested in the scene, found that he had overbalanced himself; and, to escape falling into the water, was obliged to spring upon that same mud bank, where he went as much deeper into the mud than the Botanist, as his momentum was proportionately greater in alighting there. The difficulty of extracting him from the slough was, of course, increased, and so was the merriment accompanying the task.

On the following day we passed the villages of Manicoré and Bullymentoo, and reached the great bend, the only one of any consequence on the Brazilian portion of the river. It is a double bend in the shape of a very curly S, so much twisted, that in order to make a clear distance of fifteen miles, it is necessary

to make a journey of thirty-five. During the afternoon, a very bright rainbow stretched itself before us across the river, and seemed to bridge it, the two ends resting exactly on the opposite shores. The great altitude of the sun gave the bow a flatness such as is never seen in temperate regions, the centre being apparently only a few feet above the water. This phenomenon was succeeded by a thunderstorm, which growled away in the distance, until we were anchoring close to the shore for the night, when a flash of rose-coloured lightning seemed to envelope us all in a blinding blaze, and at the same instant the thunder crashed with a sharp rattling report, like the snapping of all the trees in the forest. None of us had ever experienced such a flash and crash, and it was difficult for the moment to realize that we had escaped unhurt. The storm in our immediate vicinity exhausted itself in that one tremendous effort, and quickly died away in very distant mutterings.

Very abnormal weather followed this electrical outbreak. The thermometer rose day by day until it stood at 107 degrees in the shade on the deck of our launch, and not a particle of breeze ever sprang up for a moment to mitigate the intolerable heat. Appetite and spirits flagged, and no one felt disposed to do any work. The discomfort of this part of our trip was also much increased by the numerous mosquitoes at night. One place, off which we anchored at the close of a very hot day, has particularly impressed itself upon our memories, as the spot most troubled by these pests of any touched at in the whole course of our wanderings. It was named, in a descriptively matter-of-

fact manner, Tres Casas—three houses—and a single glance at the group of inhabitants watching us from the shore sufficed to enlighten us respecting the characteristics of the settlement. All of them were slapping their knees, elbows, and other prominent portions of the body, where the dress, fitting tightly upon the skin, gave the mosquitoes an opportunity of biting through. The people performed this operation in a steady and monotonous manner, as if it had become wholly mechanical with them, and habit had made it second nature. The thought at once occurred to us, that our travels through these pest-haunted regions might be sufficiently prolonged to fasten the same habit upon each one of us, thereby making our demeanour, after our return, a great puzzle to English friends, who would naturally feel a difficulty in accounting for such strange antics.

It happened that a shoal lying off Tres Casas enabled us to anchor the 'Beija Flor' at a considerable distance—perhaps a full furlong—from the shore, consequently we had some hope that the mosquitoes would fail to find us out. In this, however, we were wofully disappointed: no sooner were the lamps lit than they swarmed across the water in myriads, rendering our evening miserable, and keeping up a loud hum of baffled malice outside our nets all night. In the morning they showed no signs of leaving us, and, as the air was thick with perfect clouds of them, no work could be attempted until their numbers had been lessened. Seizing his butterfly net, the Botanist passed it swiftly to and fro in the spaces where the enemy swarmed most densely, pausing now and again

to turn out from the corners solid masses of the slain as big as walnuts. When he tired, some one relieved him, and in this manner the slaughter continued for about half an hour, when the plague was reduced to reasonable dimensions.

The intense heat was about at its worst when we arrived, on the tenth day of our voyage, at Crato. Every map in our possession showed this place, and some of them indicated no other along the whole Madeira. Naturally, therefore, we were expecting something very superior in the way of a town or village, and the favourite question at every stopping place had been for some time, "How far is it to Crato?" Some had boldly denied the existence of such a place, others had magnified its importance, but now we were at last able to judge for ourselves. It proved to be a decent little village, with perhaps twenty houses, standing on high ground on the western shore. The chief feature was a long wooden staging, constructed by some ingenious individual for the purpose of connecting the lower swell of the bank to the higher elevation beyond the intervening hollow. It was thus a kind of primitive Holborn Viaduct, and conveyed us by a gentle incline to the church and principal house of the settlement, situated on the very summit of the rise. Provisions were getting low on board the launch, and we had trusted to Crato—judging it by the fine appearance it cut upon our maps—for the replenishing of our stores. Seeing a gentleman standing in an elevated porch at the great house referred to, we approached and asked what food was procurable. He seemed to regard our inquiries

as mockery, and replied that it was useless to propound such a question in such a place, for everyone was starving, and if the expected visit of the Company's steamer were much longer delayed, the consequences would be serious if not fatal.

In full view of Crato, situated upon the same high bank, and scarcely more than a mile distant, was another little settlement, called Humayta, off which a short steam quickly brought us. To our surprise, after our recent experience of destitution, it had a thoroughly thriving appearance, and proved to be a veritable land of plenty. The place had been created by an enterprising Bolivian—Senhor Monteira—who occupied the principal house, to which a store was attached, the remaining buildings being the dwellings of his workpeople. He was the owner of a little steamer, called the 'Myacæ,' trading with Pará, and in which he was away at the time. We had no difficulty in procuring provisions, including fresh bread, butter, flour, turtles, and plantains, as well as a stock of superior wood for the 'Beija Flor.' Why Crato should remain in a famishing condition, in full view of well-stored Humayta, is a mystery; unless it be that the former is jealous of its rival, and will rather perish than have any dealings with it.

Above this point the Madeira for some distance was less thickly populated, and its banks were more than usually abraded by the current. Fallen trees formed snags, and impeded navigation near the shore. As many of them were somewhat below the surface of the water, it was difficult to avoid occasionally striking upon them; but the progress of the launch

against the stream was so slow that no damage was done. It was amusing to witness the anger of Captain Mamedé when this happened whilst a sailor was steering, and to hear how soundly he rated the poor fellow: yet, when he himself was at the wheel and the same thing occurred, he assumed a look of blank astonishment, verging upon incredulity, and his face said, as plainly as any face could, "Don't tell me that we struck a log just then; that is impossible whilst I am at the helm!"

On one occasion, when a smart shock seemed to indicate that the 'Beija Flor' had come into collision with a snag more forcibly than usual, a large turtle was seen to rise behind her in an apparently bewildered condition, and it became evident that she had really struck its back in passing. At another time the launch suddenly and unaccountably came to a dead stop, the screw refusing to revolve any longer. The engineer, who went down into the water to discover the cause, reported that a turtle was caught and held fast there; but unfortunately in freeing it the creature managed to escape.

On the day succeeding our departure from Humayta, a sudden and unexpected change took place in the weather. A brisk steady wind swept down river directly in our faces, making the thermometer fall rapidly. Day after day a uniform mass of cloud of a dull grey tint covered the sky, concealing the sun; and night after night no stars appeared. The leaves of many of the forest trees began to shrivel with the cold, and the white cranes and other birds along the shore remained huddled up, too benumbed to fly away

as the 'Beija Flor' approached. Mosquitoes entirely disappeared. One after another, the shivering members of the Commission assumed their coats, never required before or subsequently, for the sake of warmth. Our day temperature was, however, never less than 66 degrees, which in England would be considered rather high; but it must be remembered that we had just before been perspiring in a temperature of 107, and the loss of more than 40 degrees of heat was no slight matter. We were told that at this time of the year it is not unusual for a cold wind, of the kind we were experiencing, to sweep down from the table-land of Bolivia, and that it was occasionally piercing enough even to kill some of the fish in the river.

The part of the Madeira now reached was said to be infested by a savage and much-dreaded tribe of Indians, called the Parentintins. At all our stopping places for a considerable distance, we had noticed that the people kept huge bloodhounds, intended for their protection; and it had been a source of anxiety to us, when effecting a landing, lest these brutes should come to the conclusion that we belonged to some unknown and probably unfriendly tribe, and set their teeth in us accordingly. In fact, we had dreaded the dogs much more than the Parentintins themselves; but it was far otherwise with our Captain, whose feelings had been harrowed up, and fears excited, by the horrible tales of recent massacre and outrage said to have been perpetrated, at various points along the river, by these savages. Accordingly when we came to an anchor each evening, he carefully selected a spot at which, in his opinion, we were

least exposed to attacks, and all night the sailors watched, turn by turn, to guard us from danger. The peril was most likely very trifling, for had the savages seen us, they would probably have believed the 'Beija Flor' to be a Government gunboat, able to open fire upon them at a moment's notice, and have steered clear of us accordingly. At any rate, we pursued our way without a single glimpse of these ferocious Indians.

At length, on the fourteenth day of our journey up river, when the cold wind to which we have referred was blowing most keenly, we caught sight of S. Antonio—a confused cluster of houses and sheds, backed by some low hills, and flanked by the Madeira cataract stretching away on the right. It was with great eagerness that we had looked forward to our arrival at this place, partly because it was the turning-point of our journey on this river, of which we were getting not a little tired; and partly because it offered in itself various points of interest—the railway, the falls, and the granite rocks. A third reason, perhaps stronger than any, made us wish for S. Antonio, namely, the expectation of meeting, and renewing intercourse there, with our lively friend Mr. Davis. Newspapers and bottles of ale had been carefully saved for his entertainment; and as we drew near the landing place, everyone had his field glass in use, trying to discover him amongst the groups awaiting our arrival, but without success.

Stepping hastily ashore, as soon as the 'Beija Flor' touched land, we encountered a gaunt-looking Frenchman, with a long beard, sallow face, and head roughly

bound up in a handkerchief, of whom we hastened to make inquiries of our friend. Great was the shock to us all when the old man told us he was dead. We were incredulous—hoped there might be some mistake, and appealed to the next man we met, who happened to be the foreman in charge of the property belonging to the Railway Company. He confirmed the sad intelligence, and taking us into the office, showed us his name on a scrap of paper, and told us that he had died on April 11th—the day on which we had seen the empty black coffin so grimly waiting for its tenant on Lake Abowucoo. It only then remained to ask to be taken to his grave.

The Frenchman was our guide, and led us across a partially cleared space behind the village, strewn with granite rocks and fallen tree-trunks, to the house built for the use of the Engineers—now deserted, as all had gone away. Here he pointed out the room in which our friend had departed; and then brought us to the grave, at no great distance, but a little in the rear of the building, on the edge of the unenclosed forest. It had been railed off roughly, and a neat wooden cross placed at the head, by the English carpenter who had since hurried from the place. We were all much moved, for when we last saw Mr. Davis, he had been full of energy and merriment, and it seemed a hard thing that he should die in this wretched spot, so far away from his friends. Our ghastly-looking guide relieved the embarrassment of our constrained silence, by volubly dwelling upon the great grief they all felt in the little settlement when they laid him in his solitary grave, and describing the affection with which everyone regarded him.

The undertaking, in connection with which Mr. Davis sacrificed his life, is no doubt one of considerable importance. Bolivia with its three millions of inhabitants, and wealth of animal, vegetable, and mineral products, has unfortunately hardly any sea coast. The lofty range of the Andes, intervening between this and the remainder of the country, renders the few indifferent ports unavailable for commerce, and trade languishes from want of communication with the markets of the world. Could the obstruction, caused by the eighteen large cataracts which impede the navigation of the Madeira for a distance of 230 miles, be removed, Bolivia would at once be provided with that connection with the outside world she so much needs. For this purpose, a line of railway has been projected, to be called the Madeira and Mamoré railway, with a capital of 625,000*l.*, which, starting from S. Antonio, shall cross the bend by a short cut, and after a course of about 170 miles terminate above the falls.

To the achievement of this obviously desirable work, the nature of the ground to be traversed offers no impediment. Slight undulations of the land occur, and a few small tributaries have to be crossed, but nothing that can be called an engineering difficulty arises along the whole route. And yet the undertaking, though vigorously grappled with, has been hitherto an entire failure, on account especially of one unlooked-for obstacle—the unhealthiness of the region. It would appear that wherever cataracts are found in tropical countries, falling over granite rocks, their immediate vicinities are the haunts of terrible fevers. This may, perhaps, be accounted for by the fact that

hollows usually occur between the rocks, which retain the water as the floods sink from their highest level, thus forming stagnant pools in which vegetation decays and gives off miasma under the glare of the tropical sun. Whether this be the cause or not, it is certain that at S. Antonio the labourers died so rapidly that the undertaking had to be abandoned, after something like 90,000*l.* had, it is said, been spent, for which there is now nothing to show but a slight scratch in the ground—representing the first cutting—a house, a few rough sheds, some cleared land, two wrecks in the harbour, and several great heaps of the cases of tinned meats and broken bottles.

Our friend, Mr. Davis, had accepted the theory, given above, of the cause of the unhealthiness of S. Antonio, and with characteristic vigour, had set about remedying it, immediately after his arrival there. At every important pool he had blown up some of the surrounding rock, thus completely draining it; and where this was not possible he had set men to pump it dry. Around the house he had enlarged the clearing and planted bananas and vegetables for the use of the settlement. In the midst of these labours, in which he had taken more than his proper personal share, he was suddenly struck down,—the victim, not so much of the prevalent fever, as of a general prostration of the system through excessive fatigue. It is painful to think of the uselessness of this sacrifice of a valuable life; for the American engineers reported against the feasibility of the undertaking, and it was once more abandoned.

Should the scheme ever be resumed, as doubtless it must be, more will have to be done, after the method pursued by Mr. Davis, for removing the unhealthiness of the district. It will plainly be wise to bring the northern terminus farther down river than S. Antonio, and temporary villages for workmen must be located along the line, at points as far removed as possible from the neighbourhood of cataracts. Great care should be taken to provide them sufficient and proper food. Most of the required labour must be obtained from the sturdy Indians of Bolivia, and this being the case, a rough tramway should be run through as speedily as possible, to enable an engine and trucks to run forward and backward. The ample supply of timber for sleepers and temporary bridges would make this an easy matter; and, when once through communication had been established, the workmen might be frequently changed as their health required, until the permanent railway had been leisurely and efficiently completed.

The English Company, who failed to bring the undertaking to a successful issue, drew their labourers from all sources. We heard much of a number of Spanish emigrants, of the very lowest class, who were induced to go out as navvies. On arriving at Pará, one half of them refused to go farther, until they had received some report of the place for which they were bound, from the other half who were willing to proceed. It was a difficult matter to convey such an unruly lot to their destination, and could only be managed by great firmness; but they had scarcely been set on shore, when they began to die off rapidly,

until only a handful remained. These returned to Pará by the next steamer, giving of course no very enthusiastic account of the land in which they had made a brief sojourn.

One formidable difficulty in connection with the making of the railway has probably been overcome. The district through which it has to pass is infested by the dreaded Parentintin and Araras Indians, who frequently attack the boats passing up and down the falls. They made an assault upon the Engineer's settlement at S. Antonio, which turned out very disastrously for themselves. In a little hut standing apart, and not far from the point where they issued from the forest, the Doctor was at the time attending a poor man, who was lying there in the last extremity of small-pox. Hearing the war whoop, he fled from his patient towards the village, followed by a shower of arrows, all of which luckily missed their mark. The Engineers and Artizans, now aroused, seized their guns and prepared to defend themselves; whereupon the baffled savages hastened the end of the dying man, and carried off his clothes as the sole trophy of their exploit. It proved to be a fatal memento, for the loathsome disease of small-pox spread rapidly among them, carrying off many victims, and doubtless impressing them with the belief that the vengeance of heaven rested upon them for attacking the white men.

Our first impulse, as soon as we had heard of the death of our friend, and visited his grave, was to flee at once from S. Antonio with all possible speed. We were hurrying on board the 'Beija Flor' with this

object, when the Foreman accosted us, and asked, with great earnestness, if any of our number knew anything of medicines. He stated that he had a whole room full, left there by the English Doctor, but did not know how to use them. The village was full of sick persons, and he begged us to point out, if we possibly could, what remedies to apply. Such an appeal could not be disregarded, and, turning back with him, Mr. Trail spent a whole hour in picking out the simplest and most valuable physics, labelling each with a description of the cases in which it might be useful, and what dose to give.

While this task was being accomplished, the patients began to gather, one by one, around the door, asking for advice. Several had fever, or were suffering from weakness consequent upon it. Some had ulcers, others bad eyes, and one man opened his shirt and pointed out the spot where a bullet lay concealed underneath the skin. It appeared that there were only three sound persons in the settlement, and two of them were black soldiers attached to the Custom House, who had not been there long. All were prescribed for as far as possible; and this done, we once more hastened our return to the 'Beija Flor.'

Before we could effect a start, however, numbers of grateful patients flocked on board with presents of bananas, pumpkins, and bottled peppers of preternatural hotness. They appeared so much to enjoy looking round the launch and chatting with us, that we could not hurry them ashore directly; but the desire to put as much distance as possible between ourselves and S. Antonio by nightfall grew momentarily stronger,

and the casting off of the mooring lines presently gave them warning that we were on the point of departure. As long as our steamer remained in sight, they continued to watch us from the landing place with a wistful gaze. Short as our stay had been, the Interpreter was troubled, for several succeeding days, with attacks of intermittent fever, which he attributed to the bad air he had breathed during the few hours spent in the settlement.

Descending the Madeira by the aid of the current was a very easy matter, compared with the toilsome process of working slowly up against it, and we sometimes accomplished, between sunrise and sunset, what had occupied us two and a half days when ascending the river. Some delay was caused, however, by our numerous landings, and by three important side explorations.

The first of these was up the river Jamary, which enters the Madeira on the eastern side, at a point fifty miles from S. Antonio. It is one of the so-called white-water rivers—the actual tint being a kind of greyish green—and winds very much. At the mouth is a large house occupied by the Bolivian Consul, whose district embraces the whole of the Madeira from the Amazon to the falls. He was an exceedingly gentlemanly man, and entertained us in a pleasant upstairs room, open on three sides to the air, except that curtains could be lowered for shelter when required, and commanding views both of the Madeira and Jamary. Tea was handed round on a silver salver, and everything about the place betokened prosperity. The Consul's wife—like all Bolivian

ladies, but unlike the Portuguese or Brazilian—conversed freely with us, and even entertained us for a considerable time before her husband made his appearance. She was dressed in a singular garment, common upon this river, and doubtless in Bolivia also, which although far from being becoming, is probably very comfortable. It was of cotton, printed in grey and green stripes, and without a waist, so that it gradually spread, extinguisher fashion, from the shoulders to the ground, giving the wearer a very odd appearance.

The Consul was able to afford us much information about the Madeira, and when he saw that we dabbled a little in oil painting, pressed us much to remain some days with him, and make a picture of his pleasant place. He may well be proud of the people on whose behalf he acts, for the Bolivians are a fine race—well grown, energetic, and thrifty. They form a large proportion of the inhabitants of the river, and build for themselves comfortable houses, always with some of the rooms raised on staging above the level of the flood. Large mosquito curtains form an invariable feature in their domestic arrangements, and flourishing plantations are usually seen in the neighbourhood of their homes. The dress of the men is very simple, consisting only of one garment—a narrow strip of calico some seven feet in length. In the middle is a slit through which the head is put, and one half of the material then hangs down in front, while the other falls to a similar length behind, like the ecclesiastical vestment known as a chasuble, except that the Bolivians confine it at the waist with a girdle. In

the case of very poor Indians, the garment, instead of being cotton, is made of the bark of a tree, and the waistband is simply a piece of bush rope.

The second side exploration undertaken by us was on the lakes of Antonio. Entering from the Madeira by a very narrow igaripé, we continued along it until we suddenly emerged upon a wider space filled by several small islands. Beyond this was the clear expanse of the first lake, about a mile in width, and five miles in length. Near the islands were a number of canoes, each furnished with a small board projecting over the water at the bow. Upon this narrow perch stood, in every case, an Indian, quite upright and as still as a statue, with an arrow placed against the drawn string of his bow. His gaze was fixed with great intensity upon the surface of the lake, in order to note the first symptoms of the rise of a turtle, when the arrow would be at once discharged to fall upon its unlucky back. Although the missile must be sent up to an immense elevation, so that it may descend with sufficient force to penetrate the hard shell of the turtle's back, the Indians, it is said, become so dexterous by long practice that they seldom miss their mark.

The left bank of the lake was raised about sixty feet above the water level. At the far end was a village on the top, commanding a fine view, and occupied by Mura Indians—a tribe with whom we had not previously made acquaintance. They appeared to be exceedingly fond of pets. Nearly all the women were nursing monkeys, while several more of these amusing animals were playing with the

numerous dogs, and seemingly on the best of terms with them. Parrots were scarcely less common than monkeys. We saw nothing of the alleged habit of this tribe of blowing snuff through bent tubes into each other's nostrils.

On leaving the first lake we entered again the narrow winding igaripé, and emerged upon the second, greatly resembling the other in size and appearance. The puffing of the 'Beija Flor' startled the immense flocks of white cranes along the margin of the water; and these, rising simultaneously into the air, betook themselves with much flapping of wings to the branches of the adjacent trees.

The river Marmellos, entering the Madeira a little above its great double bend, was the third place at which we turned aside. It is a clear black-water river with many resacas and wooded spits, giving it a strong resemblance to the Mauhes and Abacaxis. Although we followed it for a considerable distance, we saw no houses or human inhabitants.

The name of the Madeira, signifying *wood*, naturally led us to look for fine forest along its banks, nor were we disappointed. That valuable tree the red cedar is particularly common. No one ever thinks of going into the bush to fell it, for sufficient quantities fall every year into the river as the banks crumble, and are swept down by the rising floods. Any person needing this timber keeps watch in the proper season, and, upon observing a big log floating down stream, puts off in his canoe and tows it to the shore. The most striking looking tree in the Madeira forest is, however, the "pao-mulatto" or black-tree. Its bark

is peculiarly smooth and shining—at times of a reddish brown colour, but more usually quite black, as if polished with black-lead. This peculiarity gives it a marked appearance, distinguishing it from the white-stemmed zeringas, and the ordinary rough brown-trunked trees. It grows to an immense height, spreading gracefully, and would be a magnificent object in an English park, could it be induced to grow there. Wild cacao abounds along the shores of the Madeira, and, with its light green leaves tinged with pink or brown, gives welcome variety to the unbroken line of foliage.

Bird life is abundant on this river, especially on the middle portion. Here, in quiet side igaripés, numbers of roseate spoonbills fringed the margin of the water, looming large against the dark forest background. On the mud flats at the ends of the large islands which frequently occur in the Madeira, as in the Amazon itself, quantities of negrocopes, white cranes, and small gulls, gave animation to the scene. Ring-necked plovers, and a large kind of grey and white goatsucker which flies about in the afternoon, frequented the drier flats of a more sandy nature. Perched on dead tree trunks sticking up through the water, was another species of goatsucker, which we saw nowhere but on this river above Sapukia-oroka.

At intervals along the whole course of the Madeira, we observed cliff sections of the red clays, and variegated sands deposit, but owing to the height of the water at the time, were unable to see its base. Not far below S. Antonio, on the south-east side of the river, is a boss of grey granitic gneiss, containing bands of

hornblendic gneiss, the foliation of which runs in a S.S.W. and N.N.E. direction. Beyond this was one exposure of finely crystalline red syenite. The rocks forming the first cataract, and the low rolling area at S. Antonio, are composed of a coarse variety of porphyritic granite. Strangely enough, we saw nothing of the limestone on the banks of the Madeira before coming to the granite rocks. It is either cut off by a great fault, or is hidden by the recent deposit.

On our return journey we touched again at Humayta for provisions and wood, and found that Senhor Monteira had now come back. His foreman paid a visit to the 'Beija Flor,' and happened to see one of the Commission engaged in sketching the group of men handing the logs on board, whereupon he stated that his master had long been waiting for some one to design a church for the settlement, and asked the sketcher to undertake the task. It was pointed out that the launch was almost ready to start, and in a quarter of an hour would be off; but no excuse of that kind availed. Something very rough was all that would be required, the foreman urged, and there was nothing for it but to dash off some sort of front elevation, adding a touch of colour to give effect to the pencil outline. Senhor Monteira received it with polite oblivion of its many necessary defects, and asked us to accompany him to the top of the plateau to choose the site. A workman was requested to follow with a mallet and bundle of pegs, and when a spot had been selected which seemed to meet with general approval, the foundations were solemnly staked out in the presence of numerous spectators. Before we

left Brazil, we heard that the church had actually been built. Travellers who observe it standing conspicuously on the summit of the high bank as they pass along the river below, if not overpowered by the magnificence of its architecture, may at least regard it as a monument of what can be done in the way of design in a busy quarter of an hour.

In taking down the pile of wood at one place at which we touched for fuel, two large centipedes were disclosed in hollows in the ground, coiled round their young, which were snowy white, very small, and apparently thousands in number. As fast as we scattered them with a stick, the old ones gathered them together again, tucked them up between their legs, and resumed their former positions. When the ants, which had also been disturbed by the removal of the logs, ran over the young, the centipedes attacked them savagely with their mouths. At length we dispatched one of the loathsome creatures, but the other contrived to escape, and their progeny were left to fry in the sun.

Manicoré had struck us as a pleasant-looking place, going up the river, and we were glad to have the opportunity of landing there on our way down. The village stretches for a considerable length along a bank, which is higher and more abrupt than usual. Seats placed here and there on the brow seemed to indicate that the inhabitants were proud of their view from thence, and not altogether without reason. As we made our peregrination along the single street, a school attracted our attention, into which we entered, for the purpose of seeing what progress was being

made with education on the Madeira. The lads at once clustered round us, begging for our blessing, which we freely bestowed, and hope it may do them good. The schoolmaster was occupied in his own house, and did not make his appearance until we had been some time in the place, yet the boys were behaving in a quiet and orderly manner. We examined the copy books, and were surprised at the neatness of the writing, which was in a freer and more elegant hand than would be produced by lads of the same age in England. The sententious aphorisms forming the copy slips were nearly all directed against lying or laziness, probably because it was considered that these were the vices to which the youngsters were most prone.

One of the largest Brazilian tributaries of the Madeira is the Uaripuana. We could not spare time to explore it, but landed at a house, near its mouth, to ask for any information about its course that might be forthcoming. No sooner, however, did we step ashore, than all the inhabitants fled and hid themselves; a little naked boy, with a naked baby astride his hips, being the bravest of the lot, and therefore the last to beat a retreat. Nothing could be seen at the house of a single human being, and it only remained to take a stroll in the forest before re-embarking. A strange transformation had, however, taken place when we returned from this short ramble. Our Captain was seated on a high form before the house, and round him were clustered the women and children, all decently clad, down to the baby itself. It appeared that the Captain had discovered an elderly aunt, for

whom he had been searching for years, and no end of cousins, whose existence even had been previously unknown to him. The men of the place were still hiding, but had been sent for, and we learned that the cause of the general alarm on the arrival of the 'Beija Flor,' was owing to the belief that we had come to look up deserters. A vivid remembrance is still cherished of the legal levies made for service against Lopez in the Paraguayan war. Of course it was not thought that we meant to carry off the women and children, but they might be somewhat seriously questioned respecting the whereabouts of their male relations, and hence the general stampede of both sexes.

Tabocal was another place whose look had pleased us on our ascent of the river, chiefly because of its magnificent palms. Close by the landing was a grand ita palm, in full flower, scenting the air for a considerable distance round. Not far from this was a splendid group of assais, the most graceful and elegant of all Amazonian palms. The village, like Humayta, seemed to belong to one person, but in this case the owner was a lady. She greeted us from a high balcony of the principal house, and sent a man to be our guide round the settlement. He took us to the church, and three young women followed us thither, one of whom we thought rather pretty. Some one was remarking as much, when she suddenly smiled, and, in one moment, dissolved the charm. The parting of her lips displayed two rows of teeth filed to sharp points, like those of a saw. One grew accustomed to the look of this strange practice with men, but it was

more difficult to reconcile oneself to it in individuals of the fairer sex. As we repassed the house of the old lady, she sent out servants with chairs for our whole party, but what to do with them we hardly knew. Possibly she meant us to sit down and enjoy the view, but in order to do this it would be necessary to turn our backs upon our entertainer—which was not to be thought of. Leaving the prospect to take care of itself, we seated ourselves with our faces towards the lady; when a sudden sense of the ridiculousness of the situation flashed simultaneously across our minds. The Commission was, in fact, sitting in a straight row, staring solemnly up at a very stout elderly female, at too great a distance to exchange a single word of conversation with her. Nothing could well be more absurd, and, rising hastily, we made our profoundest bows and hurried away from Tabocal, never in all probability to see it again.

On the evening of our twenty-third day on the river, we found ourselves back again at the place where we had entered it by the Canumá channel. One more day took us over the portion hitherto unvisited by the 'Beija Flor,' and brought us out on the wide expanse of water at the junction of the Amazon with its greatest tributary. A large island, called Autaz Island, lies immediately above the Madeira mouth; and we turned up the Autaz paranamirim, between it and the mainland. On many maps, a channel of this name is shown connecting the Amazon near its junction with the Negro, and the Madeira at a point near Borba; but we saw nothing of this link, and very much doubt its existence.

Certainly there is no channel joining the Canumá river near its source to the Madeira at Manicoré, as shown on almost all maps of Brazil.

From the Autaz, up the Amazon to Manaos, was a long day's steam for the 'Beija Flor'; but by starting at 4 A.M., she succeeded in accomplishing it by dusk. During the afternoon a cry was raised that a peccary, or bush-hog, was floating down river on the trunk of a tree, and the canoe was sent to capture it. The Chief fired, but the animal, only wounded, jumped into the water, where it persisted in trying to swim against the current. For this its strength was wholly insufficient, and it was soon overtaken and dragged on board. It proved to be one of the largest size, but so thin that it was evident it must have been for a long time prisoner on the drifting log.

Low hills made their appearance on the northern bank during the afternoon, and continued all the way to Manaos. At five o'clock we passed across the mouth of the Solimões, or High Amazon, forming a junction at an exact right angle. The Negro, up which our course lay, looks at the first glance like the main river, on account of its great width, and the way in which it joins the Amazon in the exact line of its general direction; but the change of colour in the water, and the absence of any very strong current, would soon convince the most superficial observer that, by keeping straight on, he had left the main river for a sluggish tributary.

Lights gleaming across a wide and smooth expanse of water, from street lamps, windows of houses, and steamers anchored in the port, indicated our approach to the capital of Amazonia, and made an imposing

display to eyes long familiar only with tiny settlements, carefully darkened at night on account of the mosquitoes. It was a pleasant sound to hear the anchor go down, thus bringing to a close the longest trip we had yet undertaken. A few minutes later, when we had assumed coats and collars, and landed in search of letters, we felt more civilized in ourselves and our surroundings than had been the case with us for many a long day.

## CHAPTER XVII.

### ON THE RIO NEGRO.

The Rio Negro above Manaos — Pedreira — Lieutenant's Account of Indian Attacks upon Pedreira — Savage Tribes on the Jaupiri — Pass Mouth of the Rio Branco — Carvoeira — Strange Dance — Get Pilot at Caburie — Sad Fate of Crew of Sunken Craft — Dangerous Passage — Barcellos — Visit the Priest and an Official — Spend a Pleasant Evening — A Little Semi-wild Indian — Old St. Isabel — Commence Return Journey — Padawiry River — Piassaba — Revisit Barcellos — Fever about — Dark Individual — Night Monkey — The 'Beija Flor' charges the Forest — Fever at Ayrão — Arrive at Manaos.

OUR stay at Manaos after our arrival from the Madeira was of short duration, but we subsequently spent a lengthened period in this city, and therefore have reserved a description of the place for the following chapter.

On June 14th we left Manaos in the 'Beija Flor' on a journey up the Rio Negro, and as the river is lake-like, flowing with an almost imperceptible current, we kept well out from shore. A mile or so above the city the Negro widened considerably, and for fifteen miles is free from islands. Beyond that it is so studded with them that at very few places can its full width be seen. Gaining the lower end of the large island of Anavilana we took a channel along the north bank, leaving the great broad expanse of river on the left, with its water horizon, to the westward. On the way up we saw but few houses on its banks, and no signs of life, everything about the majestic river

wearing a sombre aspect, looking lonely and deserted. That night a rain and thunder storm, accompanied by strong wind, kicked up such a rolling sea in the channel where we had made fast that none of us got much sleep. We had to stuff articles of clothing alongside us in our hammocks, to act as buffers, as we swung uneasily backwards and forwards against opposing articles of ship's furniture.

All the following day we were steaming on the deep black water amongst numerous islands clothed with luxuriant vegetation; and late in the afternoon, after passing a few straggling houses, came to a fasenda, called Conceição, on the northern main. There, in front of its cheerful grass-covered area, we anchored for the night, and, landing, paid its owner a visit. Some fifty head of cattle grazing on the grassy slopes added life to the scene.

On our third day out from Manaos we began to get short of wood, and so crossed the river, threading our way through little channels amongst vast numbers of islands, until we arrived at the small village of Ayrão, consisting of ten houses, situated on high land on the river's southern bank. A number of people were collected in front of one house, amongst a lot of boxes, bales, and bags of goods, of which they were taking an inventory. They said that these were the stock-in-trade of a shopkeeper who had just died of fever. It looked to us like dividing the spoil amongst themselves; but perhaps the most charitable view to take of this proceeding is, that they were making a list of the late shopkeeper's effects previous to settling up his affairs in a legal manner.

No wood was to be got at the village, but at the mouth of the Jaú river, near by, we were furnished with as much as we required. Whilst taking it in, a Chinaman came to us in a montaria, and talked in Portuguese to the Interpreter. He told us that he came from Peru, and was engaged in getting india-rubber, but had not settled on the river. This was the only representative of the great Celestial Empire that we fell in with during our journeying in this country.

After leaving the Jaú we kept along the southern shore of the river in order to examine it, and find the positions of the villages on our way up, so that in returning along the uninhabited northern shore we should be able to know where to cross over amongst the labyrinth of islands, in order to reach a village when short of wood.

Below Anavilana island the width of the Rio Negro is about twelve miles, while in this part it is five; but so studded is it with tree-clothed islands that neither bank can be seen at once. Some idea of the great size of the Negro may be gathered from the fact, that Anavilana is forty miles in length. Being in flood at the time, all these islands, and the lower portions of the river's bank, were some feet under water.

The next village we came to, some thirty-eight miles on, is called Pedreira, from the fact that close to it some bosses of gneissose granite come to the surface. Upon a smooth almost perpendicular face of this rock, at the village landing, are some ancient Indian picture writings, chiefly composed of circular forms.

Pedreira village, even with the cheering condition of fine sunny weather, must be a wretched-looking

place, but viewed as it was by us under the evil influence of a leaden sky, from which showers of fine rain fell at intervals of a few minutes each, it wore a most dreary, tumble-down aspect. It has one street facing the river, in which is a two-storied dwelling that at one time must have possessed considerable pretensions.

Whilst taking a stroll through the sloppy place, a particularly heavy shower fell, causing us to accept the shelter of a house proffered by its occupant, the Lieutenant in charge of a small squad of soldiers garrisoning the place. This gentleman told us that he and his eight men were stationed here to protect it from the inroads of some savage tribes of Indians, called respectively the Andiras, Peras, and Wamiris, who live far up the Jaupiri, a river which empties itself into the Rio Negro almost opposite Pedreira. From the time that the Rio Negro was first settled by the Portuguese to the present, these Indians have refused to have any dealings whatever with them or their descendants. Every expedition that has been made up their river, for the purposes of trade or otherwise, has been immediately attacked and driven back. It seems not at all unlikely that a slave-hunting raid, perpetrated by the Portuguese many years ago upon those tribes, has so embittered them, that, dreading another, they are on the alert to attack anyone who comes into their territory; and for the same reason have until recently been afraid to come down to the Rio Negro to trade peaceably. The last attempt to visit them was made a few years ago by an Italian friar, who, like many others, met with his

death at their hands. Their tactics seem to have changed, for in January 1873 they, for the first time, took the initiative in an attack upon the Brazilians who inhabit Pedreira.

A considerable force of them landed there at night, surrounded the place, and, taking the few inhabitants by surprise, drove them for refuge into the neighbouring forest, killing two women and one child. After taking every article of iron that they could lay their hands on, such as knives and axes, and playfully ringing the church bells, they departed as suddenly as they came. Having been so successful in the matter of loot they paid the village a second visit, during which they removed the entire contents of a blacksmith's forge, brutally murdering the unfortunate owner and his boy. We paid a visit to the spot, and saw how thoroughly they had devastated the interior of this building, even extracting the nails and staples from the woodwork. To prevent a repetition of these outrages the Government at Manaos sent up eight soldiers for the protection of the place. The Indians crossed the river for the third time, but did not land, as they probably saw the soldiers. They, however, went to a house some distance below Pedreira, and there killed two women, carrying off the leg bone of one; a part of the human frame which they appear to covet as a suitable material for the construction of flutes, or arrow heads. In recrossing the river on a raft some of their party got drowned, and their bodies were found next day. The Government determined to stop this sort of thing, and sent a small launch, containing a pivot gun, and some ten soldiers, under

the command of our friend the Lieutenant, to search for the dwelling place of the tribe, in order to punish them. This expedition had only returned a few days before our arrival, after having been ninety miles up the Jaupiri, ascending as far as the foot of its first cataract. No villages were seen, and only one canoe containing Indians was met with, all of whom jumped overboard and escaped into the bush. The canoe, in which was a huge bow and some arrows, and a "shak-shak," made of a piece of a small cecropia stem, was brought down as a trophy. The Lieutenant affirmed that these people use stone hatchets, and wear small aprons made of a cloth woven from palm fibre. It is therefore obvious that their object in making attacks on the settlements of the Rio Negro was for the purpose of obtaining iron of every sort.

After wooding we continued our journey, the Lieutenant, who wished for a passage up to the next village of Carvoeira, accompanying us, and performing the duties of a pilot.

In passing the mouth of the Rio Branco, we observed that its waters, though muddy and turbid, had but a very slight whitish tinge. The full width of the Negro near this is two miles, and both banks can be seen at one time, owing to its being unobstructed by islands. In no other place from Anavilana up can both banks be seen. We regretted not seeing the well-known sculptured rocks off the mouth of the Rio Branco, but as they were at the time completely hidden by the water, it was impossible to obtain even a glimpse of them.

It was well that there was some one on board who

knew the way, otherwise we should most certainly have lost ourselves amongst the innumerable little islands that studded the river in this part, from above the Rio Branco to Carvoeira. We arrived the same afternoon at the latter mentioned village—a small slushy, grassy place, at this time an island, composed of mud walled houses in bad repair, and a large church in a good state of preservation.

We were introduced to the chief man of the district, a Major M——, who has a house here, and a cattle farm on the Rio Branco. He appeared to be a most gentlemanly man, polite, and all that sort of thing; but his tongue ran so very rapidly that he was simply overpowering at times. In speaking of the district of Fort St. Joaquim, on the Rio Branco, he mentioned having met Sir Robert Schomburgk there, and then detailed the story of the occupation of Pirara by the Brazilians, from his own countrymen's point of view. According to this, the soldiers from Georgetown had been sent to drive away his relative, the peaceable and pious Frei Jose dos Santo Innocentos, who had gone to Pirara to set up a mission and convert the Macusi Indians. He appeared not to be aware of the fact that Mr. Youd had first formed the mission, and that it was the Frei Jose who had him ousted before the latter was made to leave in his turn.

We remained that night at the village, and saw a service held at the church; in front of which was a high pole, dressed out with leaves and flowers, like a may-pole, but having besides some bananas and plantains attached to it. A ball was afterwards held, at

which was a dance unlike any we had hitherto seen, which attracted our attention by its amusing nature and the clever way in which it was executed. It was danced by eight men, two with drums, four with caracajas, one with a stick, and the last unarmed. The last individual kept behind the six dancing musicians, who had to perform in pairs, imitating the example of the leader who had the stick. The object of this person was, by performing intricate figures rapidly, to get within reach of the man behind, and so rap him with the stick; while the latter individual's sole object was to dance in time, and evade his pursuer. As the leader went to the right or left, so did the musicians; and when he went sideways to the ground, they did the same. He then sprang up, and they imitated his example, commencing to revolve in two circles, round and between which the man with the stick chased the other, until the movement became so rapid that the music could no longer be kept up.

We retired early, and during the night were awoke by a tremendous noise, and, looking out, saw a boat coming towards us full of people holding lights, shouting in prolonged yells, and discharging rockets. They were the dancers, who, having just broken up their festa, took this opportunity of saluting us. After making a circuit of the 'Beija Flor,' they returned down river, leaving a golden silence after the hideous uproar.

The Major suggested the advisability of our having a pilot, and procured us one under whose guidance we threaded our way amongst the innumerable small

islands, which studded the river, on the following morning. Some twelve miles on, we got into a more open portion where the islands were fewer and larger.

About forty-five miles above Carvoeira we came to a run of high ground called Caburie, presenting a cliff of red clay some thirty feet in height to the river, upon which there are a few houses, here and there, at long intervals apart. These high lands, with cliffs of differently coloured sand and clay beds, sometimes grey, but usually yellow and red, occur at intervals all along the southern bank of the Negro, as far up almost as we went. They are from three to five miles in length, with equal distances of low swampy igapo lands intervening. Each has a few houses and clearings along its edge; while on some are situated the small villages of the river. Anchored off one of the houses at the Caburie highland, or barreiras, we spent the night.

During the evening, whilst ashore obtaining altitudes of stars, the owner of the house, an elderly man, with whom we had some conversation, informed us that he had come from Venezuela, and knew the river well. We engaged him as a pilot after he had obtained leave from his wife, a fat chubby young woman, to go. He sold us a pair of fowls, which we considered great delicacies owing to their rarity; and our Captain, a river turtle, which he had in a small crawle. It appeared from what he said that he had been engaged by Mr. Wallace to procure specimens of birds and animals for him.

He also told us that the small-pox was prevalent amongst the children of the few families living on

their barreiras, but judging from the marks on a child's face, who had been recently ill, Mr. Trail pronounced it to be chicken-pox. These people were dreadfully afraid of the small-pox, having heard of the ravages it had effected at Manaos, where it carried off one out of every three of the inhabitants.

There was a sad picture of the effects of this dire disease in the wreck of a small trading schooner, which we passed next day, with only its masts above water, as it lay in a small bay on the river side; and with whatever remained of the corpses of its crew—the victims to small-pox—still on board. This craft had left Manaos during the epidemic, and the disease, which her crew had contracted at that place, subsequently broke out amongst them, completely overpowering them by the time they reached this spot. There they had made their vessel fast to the trees, and there they had all perished. The infectious nature of their complaint kept from them any aid that should have come from the Caburie people, or any passers by; so they had died in as deserted a state as if they had been away out in mid-ocean, beyond the reach of human succour. The hot sun had opened the seams in the vessel's sides, thus allowing the water to gain an entrance, and sink her at her moorings.

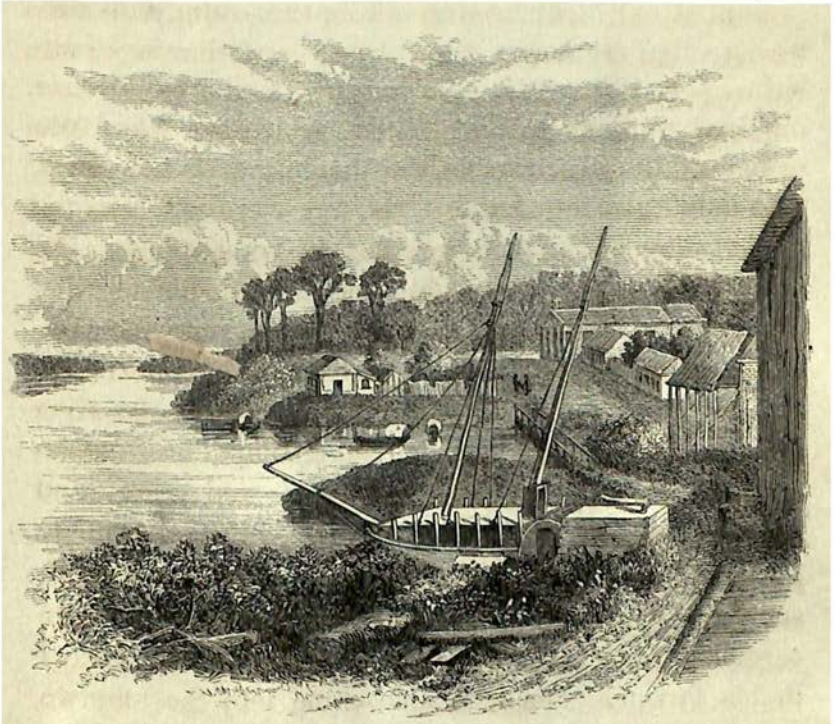
On coming to the lower end of Manaca-arca island, our recently acquired pilot advised Mamedé to take the narrow channel between it and the mainland. He had been through it in a small montaria, and evidently imagined himself still in one. We were at breakfast at the time when our ship was run into it, and were

somewhat startled at first to find that tree boughs were brushing and switching against us on both sides at the same time. Then it became dangerous work, as larger and more protruding branches were met with which threatened to brain us, and actually commenced to sweep our breakfast off the table. Each one seized a dish, and dashed with it to the pantry, behind which edifice we all took shelter while the storm of boughs lasted. As the channel was some five miles in length, we were kept in a state of anxiety, and even danger, for some time, for we had to pass over many fallen tree-tops, whose branches sticking up through the water threatened to damage the launch's screw; and on these occasions the engine had to be stopped. But the worst misfortune that befel us in this exciting passage, was in taking on board a large red ants' nest, brushed by our awning from a tree branch. On getting clear of the trees and out upon open river again, all hands had to wage war against the countless hordes of ants that emerged from that nest; and trample them, crush them, sweep them overboard, do anything in fact to eject them from our ship. Though we worked hard, and were pretty successful, yet we never entirely got rid of them; and some always remained in the 'Beija Flor' to the very last day we were in her.

In the afternoon on our seventh day from Manaos we arrived at the town of Barcellos, once the capital of the Rio Negro district. When the Portuguese owned the country they intended making a large and important town on the spot, and imported materials from their native country for the construction of large

public buildings, which it is needless to say were never erected.

Mr. Wallace, who travelled on the Amazon and Rio Negro some twenty years ago, and who has given us a delightful record of his journey up this river, in his work entitled 'Travels on the Amazon and Rio Negro,' found Barcellos almost abandoned. Since



BARCELLOS.

that time it has looked up a little, and now contains some thirty well-built, plastered and whitewashed houses, placed along a street facing the river, from which one or two short side-streets lead back. The chief trade of the place consists in piassaba and india-

rubber. The former substance, the natural product of a palm of the district, is used for making ropes and brooms. The accompanying sketch of Barcellos will give the reader an idea of the general appearance of a portion of the front street, together with a sample of one of those curious native trading crafts called *Cubertas*, which is placed in the foreground.

Whilst our steamer was taking in a supply of wood we strolled through the place; and having some letters of Major M——'s to put in the post office, inquired the way to that edifice, which we found was in one of the side streets, in the house of the priest, who acted also as postmaster. We were asked in and made welcome by this gentleman, who soon became on very friendly terms with us through his winning manners. Unlike others of his profession whom we had seen in out-of-the-way places in this country, he dressed in a style suited to his office, and wore a broad-brimmed orthodox hat. Accompanied by him we visited and presented a letter of introduction to an official of the district, who immediately began to bewail to us how sad was his fate in being posted at such a miserable, unhealthy, out-of-the-way spot, as he termed it, and he had our sympathies at once enlisted in his favour. His wife also came into the room to see us, a proceeding that somewhat astonished us, for as a rule the ladies of a house at which we called were never visible. Perhaps it was a knowledge of good manners, as practised in other lands, that led this young lady to honour us with her presence.

Our launch, having finished wooding, dropped down alongside a trestle bridge across an igaripé or creek,

that divided one portion of the town from the other, and there was made fast for the night. The official, his wife, and the priest, then accompanied us on board, and honoured us with a visit, which they seemed to enjoy as a break in the dull routine of their dreary Barcellos life. After the gentlemen had smoked cigars and partaken of some slight refreshment, the official and his wife took their departure, cordially inviting us to spend the evening at their house, which we thankfully accepted. The priest remained and dined with us, while a row of natives stood on the bridge, looking down upon us as we partook of our repast, the gleam of our lamp showing their faces above the parapet-railing.

The weather being too cloudy to get observations of stars, we adjourned to the official's residence, where we spent a most pleasant evening, and looked over his collection of native products and Indian curiosities. There was a youth there, some relation of our host's, who had been ill with fever, and though possessed of a handsome face, was the most original looking young man we ever beheld. Although the evening was hot, yet he wore a heavy bluish overcoat of very rough material, which came almost to his heels, and had a white handkerchief tied round his face. He was very friendly, and when amused laughed in a most insane manner, although just recovering from fever, and actually suffering at the time from toothache. The chief source of his amusement was the behaviour of a little Indian servant, or slave, who was seized with a spirit of mischief, and went round the room playing all sorts of tricks upon the visitors, such as pinching

our backs, biting our calves, and trying to pull off our boots, keeping at the time out of the gaze of her master. Not wishing to have the little fiend punished, we took no notice of her proceedings. Our host, however, eventually observing that she was in a lively humour, induced her to speak in her own language and imitate different characters for our entertainment. We had tea and sweetmeats at 9 P.M., and soon after retired to our ship.

Another day's steaming along the river, amongst large islands and wide channels, brought us to Cabuquem village, a deserted looking place of ten houses, only two of which were inhabited at the time. The dilapidated church seemed only to be used as a dressing (or rather undressing) room for reptiles, for on its floor lay the recently thrown-off skin of a snake, six feet in length. The stir, bustle, and commercial activity of the place, at the time, were all merged into the labours of one man, who was making a four-inch piassaba rope, in a sort of rope-walk. From the top of the high red clay cliffs upon which the village is seated, is a fine view looking up a long and wide reach of river, between the main and an island.

The following evening we stopped at Thomar village, also situated on a barreiras, another tumble-down place where there was only one really good building, owned by a Portuguese merchant, Senhor da S——, whose combined shop and house were in an exceptionally clean and neat condition. He was dressed entirely in black, even to his shirt, being in mourning for the late partner of his joys and sorrows.

We passed some large rafts, made of the trunks of

cecropia trees, floating on the edge of the river. These had been used by the natives for carrying loads of piassaba to the villages at which the Company's steamers call. When done with, the rafts, being of no further use, are cut adrift and allowed to float away. Upon the low portions of the banks of the river, our attention was attracted to the singularly pretty palms, of two species, which abound there, and which were discovered by Mr. Wallace; one is a Mauritia, and the other a Leopoldinia.

A day and a half's journey above Thomar brought us to a part of the river where there were masses of gneissose granite rocks above water, while some were hidden beneath. Over one of the latter we grated, the launch's keel just touching it, without however sustaining any damage. Beyond this on the mainland there were some low rounded white sand hills, sparsely clothed with vegetation, rising to a height of eighty-seven feet above the river. A few miles on we passed a place called Guianaria, where a Captain Cordeiro lives; off a point a little above which the current ran with such force, that our launch could just stem it.

We had now passed all the villages on the south bank, and were making for St. Isabel, which is situated on the other shore. That evening we arrived at the site of the old village of the same name, which has long since been abandoned, its inhabitants moving to a place some miles on, which now bears its name. We spent the night off the old place, long since overgrown with bush, shrubs, and arrow grass; and obtained some observations for latitude and longitude

from the surface of a large flat granite rock on the water's edge.

A short run next day brought us to the foot of the small rapid of Tapuraquara, where the river ran with considerable force. Both captain and engineer doubted whether it was safe to try the ascent of this rapid; the latter being of the opinion, that if he worked his engine at full speed, the defective bush of the screw, giving the shaft too much play, would be very apt to cause the screw's shaft to snap. We thought it best to make the attempt, allowing the Engineer to work his engine with such speed as he safely could, without endangering the machinery. This he did, and the result was that the speed did not enable the launch to stem the fierce current, so that after getting half-way up she fell back. Thus we were obliged to content ourselves with having got this far up the river, a distance of 454 miles from its mouth; and after a short stay at the foot of the rapid, commenced our return journey.

On our way down, in landing at Captain Cordeiro's, the launch was headed for a low tree growing on flooded land, in order to be there made fast; when, as we approached it, the Captain called out that there was a huge marabunta's nest on it, and then had the helm jammed hard up, in order if possible to avoid it. Most of the launch's way being lost she just sheered by, and turning slowly with the current brushed the tree, causing a swarm of angry wasps to board us. In an instant the wheel and engine were deserted, while all on board were crouching on the flange outside of the bulwarks, with coats thrown over their

heads, in anticipation of a severe stinging, and ready to plunge overboard. By thus remaining perfectly quiet, the insects merely buzzed about without stinging, while the launch slowly drifted away from their house; and after enduring what seemed to us to be hours of suspense, but was in reality minutes, we had the satisfaction of seeing them depart. The men then returned to their posts, the engine was set in motion, and we backed gracefully away from their vicinity. We had every reason to act in the gingerly manner we did, for the nest was large, and contained the elements of death for all on board.

Getting beyond the part where the large granite rocks abounded, we took a channel leading to the northern side of the river, so as to follow that bank in our descent, and after a time got into a region of other granite rocks, where the navigation was both difficult and dangerous. There was every reason to be very cautious in a place like that, for the launch's hull being built of steel plates of only one-eighth of an inch in thickness, would not stand much of a blow against a rock without coming to grief. Fortunately at this stage of the proceedings we met a man fishing from a montaria, whom we hailed, in order to inquire of him our way to a better channel. He came slowly towards us in a timid and distrustful manner, wearing a very severe countenance, and sitting bolt upright in his montaria, as if he had recently swallowed a ramrod. Judging from his salutations, he was polite withal, and gave our Captain directions how to steer so as to clear the rocks, which was soon effected.

On the following day we arrived at the mouth of a small river called the Padawiry, which we ascended for a considerable distance, being two and a half days upon it, and then returning to the Rio Negro, continued our journey. The Padiwiry is a gloomy river, having only a few inhabitants, who live in houses near its mouth, situated on the site of an ancient Indian village, where black soil and pieces of pottery abound. These houses were empty at the time, their owners being probably up the river gathering piassaba, for which article of commerce it is famous. Not far up, on its east bank, there is an extensive sandy campo, containing many shrubs, numbers of a stunted species of urua palm, and but little grass.

Whilst we were ashore on this campo, our sailors caught a matamata turtle of good size, being about three feet in length. It was an ugly salamander-like thing, its neck being large and out of all proportion to its body. Warty appendages ornamented its head and neck, while its wide mouth, drawn back into a broad grin, terminated close beneath the back of each eye. The latter were situated on a high ridge, so that the tears which it occasionally shed flowed backward, and rested in the depression on the top of its head. It had a most peculiar india-rubbery-looking snout; in fact, the whole animal looked as if made out of gutta-percha. When we turned it upon its back, it emitted a most disagreeable pungent smell, somewhat resembling that made by the peccary.

At the farthest point which we reached on this river, close to some granite rocks which have the honour of lying just under the equator, we saw smoke

issuing from the trees on the edge of the forest, and landing, perceived an old man and woman engaged in gathering piassaba.

The grove of piassaba palms was only a few yards back in the forest, and presented a most singular appearance, the stem of each tree being thickly wrapped in a naturally woven matting of a brown colour, enclosing countless long, vertical little rods of pliable material—the piassaba of commerce. The diameter of the unclothed stem of one of these palms did not much exceed six inches, while with its coating of fibre and matting it averaged from two feet six to three feet. As the stems are, roughly speaking, ten to fifteen feet in height, the quantity of useful materials obtainable from each is very great, and most easily procured, it being only necessary to cut through the matting down one side to the stem, and then strip it off. Tied into large bundles, it is placed upon rafts for transportation.

The northern shore of the Rio Negro downwards was principally low flooded land, and very sparsely inhabited, for from the mouth of the Padawiry to the settlements above Conceicão at Anavilana river, we did not see any houses whatever.

In descending we had to cross over to Barcellos and Carvoeira for wood, and also to Caburie to land our pilot at his home. Barcellos we found had received an accession of population, people having returned from somewhere or the other to their homes during our absence; and quite a number of individuals turned out to watch our launch approach. Landing at Senhor Da Silva's wood pile, we went to pay our

friend the priest a visit, and found him as jolly as ever. At the official's the whole family were down with fever, and the light of day was almost excluded from their dwelling by the close fastening of doors and window-shutters. The youth mentioned in the account of our previous visit opened the door, and then closed it quickly behind us, as if dreading the entry of the least breath of wind from without, laden with more malaria. He, poor fellow, looked awfully thin and pale, and still wore his long overcoat, together with a cap of red and blue striped Berlin wool. The official came out of his room to see us, looking very pale and ill, and evidently much alarmed about the fever which all his family and servants had taken. He seemed to feel it cold, for he also wore a grey overcoat and a hat, although the temperature was about 82°. He had written to the President at Manaos to remove him to another district, and intended leaving this place by the next steamer, never to return.

Lots of people in the village were suffering from fever at the time, and a partner of Senhor Da Silva's, the man who supplied us with wood, had just died, leaving three small children, one of whom was a very pretty little boy.

Whilst taking altitudes of the sun from some open ground near a house at the back of the town, a very thin old man, with an eagle nose, put his head out of a window, and gazed at our proceedings with a puzzled look. We addressed him, saying that we were taking longitude by the sun, thinking that the information might be useful to him; at which he wearily

shook his head, and, holding up a thin trembling hand, said, "This is a very sickly season, much fever is about, and the sun is very hot." We observed a patch of ink on the inside of the second finger of his right hand, betokening that he had been lately occupied in writing, most likely getting out a draft of his will. Withdrawing his head, he closed his window-shutter, and disappeared as quietly as he came. The dread of the malady had probably extended itself to our friend the priest, for though he came to see us at dinner-time, he would not partake of anything, informing us that he used to have fever when he came to Barcellos nineteen years before; but as he was careful in what he ate, he never had any now. He mentioned the flesh of bush animals as being a great fever producer. We had no bush animals on our table at the time, nothing, in fact, but some aged salt meat and salt codfish, so we concluded that if it was not the coarseness of our fare that prevented his joining us, it must have been that fear of fever had taken away his appetite. Perhaps a fit of indigestion had followed the first repast partaken of at our table, and had made him cautious. We were quite ready to risk catching any amount of fever, by partaking of the flesh of bush animals, if we could only purchase it anywhere. Certainly we did fare badly for want of fresh food whilst journeying upon this river, and though we never missed an opportunity of asking for fowls, turtle, fresh fish, or vegetables, were only able to purchase three miserable fowls during a period extending over more than three weeks.

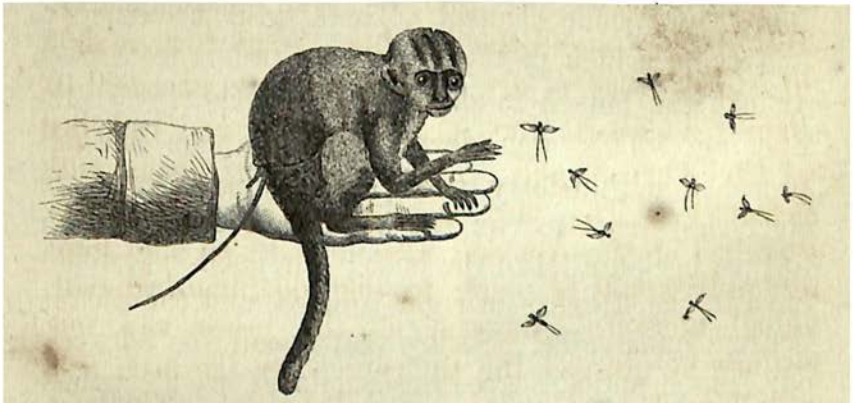
When the priest first came on board, there were

two individuals present, who had come to see us, out of curiosity. One was a very ugly chap, the head-tailor of Barcellos, the other a dark-looking stunted individual, who, hearing that we were "exploradores," had brought an old tracing of the Xingu river to show us. This work of art, he said, had been executed by Prince Aldabert, who, he informed us, had travelled on the Amazon and Xingu rivers in company with Bismarck. The fact of Bismarck's having ever travelled on the Amazon was news to us, and most probably would be news to that distinguished individual himself. As soon as the priest saw our visitors, he grasped the Interpreter by the arm, and with him fled. Gaining a safe distance he explained that the cause of his sudden flight was the presence of the dark individual, who was a villain, and had threatened his life, forcing him to carry a dagger about his person, to be drawn at any moment in self-defence.

We went in the evening to purchase some articles of native manufacture, at a small shop kept by an old man, and there saw the ugly head-tailor playing cards with him across the counter. The old man had some large musical boxes, probably worth about five pounds each, which, he informed us, met with a ready sale to indiarubber gatherers, at 200 milreis (twenty-two pounds apiece).

On our return we found the Captain in possession of a pretty little night monkey. It turned out to be very gentle and affectionate, and soon made friends with all. By day it slept in a dark corner, but awoke at sunset,

and became lively at night. It amused us to put it on the table and watch it catching the insects which always swarmed so numerously around our lamp.



NIGHT MONKEY.

At an early hour next morning we left old Barcellos, and wending our way through channels to the opposite shore descended along near it. The next occasion on which we visited the south side was to land our pilot at Caburie. There an unfortunate quarrel occurred between our Captain and one of the sailors, resulting in the immediate discharge of the latter, who was somewhat under the influence of Barcellos rum. He was paid off, and sent ashore bag and baggage by the Captain, without any ceremony; and our Spanish labourer Angelo was put in his place.

Whether this sailor placed an evil spell upon us or not, can never be known, as we did not see him again to enable us to make inquiries to that effect; but certain it is, that on the following day we met with an

accident which might have had very serious results. It occurred in this wise:—We had entered a large channel, and were nearing what was either a river's mouth or a side channel. Thinking it necessary to determine which of the two it was, orders were given to run the launch in shore so as to pass close to the opening. This was done, and when she had approached within forty yards of the forest's edge, the steersman tried to run the helm hard over, in order to turn her parallel to the bush; but, as ill-luck would have it, the steering gear got jammed, and the rudder became immovable. Seeing that a collision between our launch and the trees was imminent, we all rushed as far aft as possible, with feelings, as the novelists say, more easily imagined than described, while the engine was stopped and quickly reversed. Clearing the intervening space in less than no time, she plunged headlong into the forest, which, fortunately being flooded to a depth of some four to six feet, saved her a bump against hard ground, and a shattered bottom. Bang! crash! whiz! and branches, leaves, and twigs switched madly about our ears; while our poor launch dashed violently against a forest father on one side, and glancing off caught its neighbour in the ribs —or rather stem—on the other. By the violence of the contact and the reversed engine, her speed was considerably lessened just as she came bow on to a tree, some eight inches in diameter, which bent with the force of the blow, and thus in part broke it. The launch's mad career was now at an end, and when the bent tree suddenly sprang back, assuming its original upright position, the rebound, assisted by the

sternway, shot us nearly out of the forest. Regaining the river we were considerably relieved to find that no serious damage had been done to the hull, while what was done to the upper works, though deplorable, would not render our launch unseaworthy.

A trim neat little craft was the 'Beija Flor' when she gamely charged the bush; but, worsted by the encounter, she was after that a crippled, twisted thing, looking at least ten years older. The damage done was all forward, where stout iron stanchions, supporting the metal awning, were bent like hoops; the awning itself was twisted; the sheet-iron bulwarks were cocked up bodily in front, some two feet off the deck; and worst of all, the wheel was reclining flat on its back, its stout cast-iron stand having snapped off. Our Captain was in despair, quite beside himself, in fact, though it was all a pure accident. He took such pride in his command, that to see it in such a crippled condition moved him greatly. Rushing aft, he pointed forwards, and said with bitter irony, "Estava prompto agora!!!"—(We are ready now), —as much as to say, our ship is in a condition to go anywhere at present. We did not view things in the same light as Mamédé, but in a more cheerful manner, feeling somewhat jolly after our miraculous escape, on finding that we had not been knocked on the head, or blown up, or impaled by a tree branch, or otherwise damaged.

Word was passed to "clear the wreck," and soon all hands were busily engaged in so doing. The rudder chains were unshackled, and the iron tiller rigged on the rudder head, the bulwarks were partially replaced,

and things rendered as ship-shape as possible under the existing conditions. Fortunately the wheel stand was broken square off near its base, so that when put back in its original position, and lashed with ropes, the pressure upon it, acting in a vertical direction, tended to keep it firmly in its place. Then the steering chains, the cause of the accident, were looked to, and it was found that, from being too slack, they had got off a wheel which guided them, and were thus rendered non-effective. This also was soon remedied, and connection being made between them and the wheel, the "Beija Flor" was almost *in statu quo* again.

We stopped that night at Ayrão, and on the following morning, before leaving, saw some men digging a grave in the cemetery, where there were four others, newly made, which had within the last week or so received their unfortunate tenants. In passing along the street, we saw the corpse—that of a woman who had died of fever—for which the grave was intended, shrouded and placed in a coffin of rough boards, which stood upon a bench in the open doorway of a house. The coffin's lid, being propped up, one could look in and see the face of the poor woman.

From Ayrão onwards, we coasted along the southern shore, stopping at Nazareth, a small settlement near the Padaria river; Cashimbo; Tauapasse-assu, a small aldeia of six houses, the most easterly village of the Negro; S. Antonio, a settlement; and various other places. We also ascended and explored Tomboueira, Taruma, and other igaripés; and passed the channel which runs from the Amazon or Solimões into the

Rio Negro, some thirty miles from its mouth. This singular channel, named Aruan, runs a long distance, passing through lakes in which the sediment in suspension in its muddy water, is deposited, and it then flows into the Negro in a clear condition. As night closed in on the seventh day of July, we arrived at the city of Manaos, where we were boarded by our good friend Captain Bloem, the Assistant Superintendent of Marine of the Company, who was now stationed here. This gentleman placed at our disposal one of the Company's ships—the 'Ariman'—which was anchored off the town, as a dwelling place *pro temp.*; and, instead of having to take up our quarters in the hot town, we were thereby enabled to live coolly and comfortably in the steamer.

The geology of the Negro is not very interesting, and a general description of it can be given in a few words. At Larges point, near Manaos, the Caxoeira Grande, a point near the Igaripé Taruma, Conceição, and Ayrão, low-lying expanses of Ereré, or Guiana sandstone are seen. Upon it, at Manaos, is a red and white variegated friable sandstone, probably belonging to the Monte Alegré fountain beds.

The red and white sands and clays of the recent deposit are seen forming barreirases at numbers of places along the borders of the Negro.

At Pedreira, a gneissose granite sets in, and the only rocks we saw from that to St. Isabel were all of similar composition.

We did not meet with the carboniferous limestone on the Negro, so that if not hidden by the recent deposits, it does not extend so far to the westward,

having either not been deposited in this district, or else has been cut off by some great fault. It may be that, where the river crosses the limestone outcrop, it runs in the middle of its valley, and gives no cliff sections of that rock. Far back on either of its sides, in the forest, the limestone may form old cliffs.

# CHAPTER XVIII.

## AT MANAOS.

The 'Beija Flor' exchanged for the 'Guajará' — Delay in fitting her out — Description of Manaos — The Cathedral — The President of the Province — Live Peixe-boi — Hoisting the Ball at Noon — Protestant Services — Dr. Lee's Mission — His Colleague — A Strange Invitation to Breakfast — Pic-nic on the Tarumá — Waterfall — Ludicrous Scene — Start for the Company's Territory — Camp at Marapatá — Variety of Pests — Life in the Forest — The Engineer stung by a Scorpion — At Death's Door — Break up Camp — Stung by Caterpillars — Large Toad and Worm — Trovoado on the Negro.

THE time had at length arrived when it was possible, and even necessary, for the Commission to pause awhile from that incessant journeying about which had now for several months characterized their proceedings. The 'Beija Flor' had been engaged from her owner for a half year only, and of this period a very small portion remained—no more in fact than would be required to repair the damages caused by wear and tear, and the slight accidents which had befallen her, during the prosecution of her arduous labours.

It is possible that the little craft, to which we had become much attached, might have been re-hired for some months had this been deemed advisable; but inasmuch as there were yet longer journeys before us, it was judged better to give us a larger and somewhat stronger steamer. The Company had just acquired

the vessels of a competing line, and, amongst these was one which seemed to be in every way suitable for our purpose. She had not, however, yet arrived in Manaos from her last trip for her former owners, though overdue, and there were sinister rumours that she had got aground on a sand-bank, where she would be compelled to remain until the return of the rainy season raised the level of the river and floated her off.

Nearly a month elapsed before she turned up to refute this unpleasant report, and then she came in such a dirty and dilapidated condition that several weeks were occupied in cleaning and putting her into an efficient state of repair. In this manner our stay at Manaos was prolonged over a period of just two months. This time was, however, by no means passed idly by any of us. It can well be understood that, in our extensive and continual wanderings, a vast mass of information had been collected which needed to be put into shape, and embodied in reports. Numerous observations for latitude and longitude had to be worked out, and our maps of various rivers carefully laid down by the results. The Botanist was engaged in sorting his large collections, and sending off boxes of specimens to Kew. In the neighbourhood of Manaos itself, there was also much work to be done, as will be presently more particularly described.

Questions had arisen respecting our future plans, which it seemed desirable to discuss with Senhor Bueno at Pará, and for this purpose the Chief during these two months undertook a journey thither. A trip of 2000 miles when performed by land is usually

very fatiguing; and by sea, monotonous, and more or less uncomfortable; but here, in the well-appointed steamers of the Company, these various unpleasantnesses are hardly felt, for the special disadvantages incidental to sea and land travelling are both happily avoided. In no part of the world perhaps can a journey of the same length be performed with greater ease.

It has been already explained that we did not, whilst at Manaos, seek for quarters on shore. A roomy and comfortable steamer, called the 'Ariman,' which happened to be in port, was placed at our disposal; and when she had to leave for Pará, a still more spacious steamer—the 'Icamiaba'—was given us in exchange. It thus happened that the aspect of the capital city of Amazonia with which we grew most familiar, was the one it presented when viewed from the harbour. Stretching, as it did, along a considerable extent of shore, and occupying ground which rose in gradual undulations from the river, the appearance of the place was not a little imposing.

Quite in the centre, on the crest of a small hill, stood the cathedral. At the time of our visit it was unfinished, though sufficiently advanced to enable us to judge what the building was intended to be like. We were told that the large sum of 80,000*l.* had already been spent upon it, for which amount a very handsome structure ought to have been secured, but unfortunately the design was not good. A schoolboy might have dashed off such an elevation upon his slate, had he been asked to draw a church, but it was difficult to conceive of an architect perpetrating

such a piece of bad taste. Windows ranged at even distances in straight rows, and vast surfaces of unrecessed wall, sacrificed entirely the effects of picturesqueness and light and shade; while a glare of whitewash enveloped the whole exterior and interior. Handsome casings of white marble for the doors and windows had been sent, ready carved, from Lisbon, but these were lost sight of in the one snowy tint which spread itself over the entire building.

On the left of the cathedral was a pleasant grassy square, planted with an avenue of palms, open to the river at the general landing place, near which stood the market. Facing the water, on the quay, was an hotel, announcing itself as such by conspicuous letters on the end wall; and inasmuch as this is, with the exception of a small hostelry in a back street of the city, the only place of the kind in the Brazilian portion of the Amazon valley above Pará, it could not fail to attract our attention as a sort of novelty, though at the same time stirring memories of a not very distant past. Houses stretched away from thence westward over a low cliff, on which was also a tiny fort; and at the extreme left was the military hospital on a little island.

On the right of the cathedral one noticed the custom-house, a three-storied building, standing on the bank of a wide igaripé spanned by a wooden bridge. Then followed a row of offices and shops reaching far away along the low shore to the eastward, broken only by another igaripé and bridge. On the hill behind could be seen the tower of the old church, rising above a mass of surrounding foliage.

Not far from it is the elevated point from which the view of Manaos was sketched which forms the frontispiece.

One long straight road, called Brazil Street, runs through the city, dipping sharply to the two igaripés. Near the western end was the palace of the President of the province, but a more handsome structure was in course of erection on another site at the time of our visit. The houses of Manaos are not crowded together, as in the towns and cities of the old world, consequently it covers an area, and makes a display, quite out of proportion to the number of its inhabitants. The trade of the place is also very considerable. At one time we counted as many as ten large steamers in the port, besides a number of small launches—principally gunboats belonging to the Government. Doubtless there is a fine future before this little city, but during the past its fortunes and population have greatly fluctuated. The latter, when we saw the place, was exceedingly small, owing to the recent ravages of the small-pox, which, however, had entirely ceased.

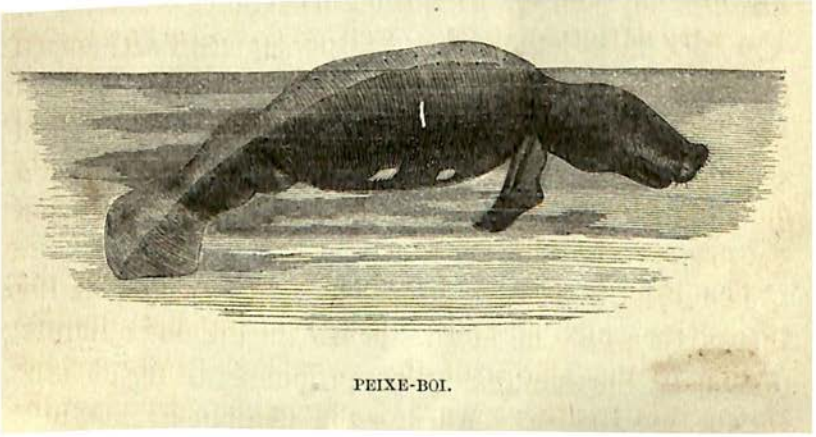
During our first short stay in Manaos we had been introduced to the President, by the Company's Agent, and subsequently paid him a few visits at the palace. It was no very formidable matter to approach the highest official in this the largest province of the empire. A word to the soldier on guard at the outer door was sufficient to procure admission to the state residence—the answer to our request to see the President being usually only a wave of the hand towards the staircase. Mounting the steps unattended, we paused at the

upper landing, and commenced vigorously to clap our hands, whereupon a servant perhaps, or more probably the President himself, put aside the heavy green hangings, embroidered with the imperial arms of Brazil which occupied each doorway, and looked out to see who might be there. Very warm was the President's greeting, for one of our hands was usually seized by both his, and vigorously shaken, while many expressions of regard and welcome were showered upon us. At times he even saluted us after the fashion of his countrymen, by throwing his arms around us, patting our backs with his hands, and exclaiming, "O, my friend, my friend!" Doubtless it was very flattering to be so well received by so exalted an individual, and yet perhaps nine Englishmen out of ten would feel, as we did, a considerable amount of embarrassment in the circumstances, combined with a difficulty about gracefully disposing their hands during the process of embracing.

The President was always pleased to show us the curiosities which he had collected during his administration of the affairs of the province. Conspicuous among his treasures were some hammocks magnificently bordered with feather-work by Indians on the Rio Negro. The patterns represented flowers, leaves, and birds, and the colours were most gorgeous; but such was the labour connected with procuring the great variety of brilliant feathers in the first place, and that of arranging them afterwards, that the hammocks were of almost fabulous value. In a gallery at the back of the house were several handsome birds, peculiar to the province, living in cages;

and in the yard below was a fine young tapir, with a beautifully sleek coat. It recognized at once the President's voice, and whinnied pleasantly in answer to his call.

On board the 'Icamiaba'—our floating home—lived another of the strange animals of these regions. It was a young peixe-boi, about four feet in length, and one of the baths was devoted to its exclusive occupancy. We were not sorry to have the opportunity of becoming familiar with a live specimen of this little-known creature. On grasping it by the middle, and lifting it bodily out of the water, where it lay con-



PEIXE-BOI.

cealed under the floating weeds introduced from time to time as food, it remained quite quietly in our arms without a struggle to free itself. This gave us time to note its general shapelessness; the smoothness of its thick skin, except where at regular intervals a small lump occurred; the smallness of its eyes; and its curious cow-like muzzle, the nostrils of which could be closed by a valve, and made entirely to disappear.

The foregoing sketch was made by the Engineer while the Botanist held it in his arms to facilitate the process of portrait taking.

Every day, by the request of Captain Bloem—who stated that the President and many of the inhabitants of Manaos wished it — we hoisted a large canvas ball to the top of the mast of our steamer at five minutes before twelve, and dropped it at exact noon. Our cook immediately struck eight bells, and all the other steamers in port at once followed suit. Sometimes a gun or pistol was fired to give additional emphasis to the performance. It was amusing to see through our field-glasses the inhabitants standing at the doors of their houses or shops, with their watches in hand, waiting for the ball to drop, then instantly returning satisfied to their several occupations.

On one occasion none of us remembered to attend to this important duty until fully ten minutes after the sun had passed its meridian altitude. Of course it was then too late to do anything, although several persons still remained at their doors waiting in vain for the usual signal. During the afternoon many sent to inquire of Captain Bloem the cause of the omission; but he, considering himself as closely identified with the business, cunningly dissembled, and replied to his questioners that they must have made a mistake; at the same time advising them to keep a sharper look-out on the following day!

One circumstance specially marked our stay at Manaos, namely this, that there and there only had we the opportunity of attending Protestant services.

Dr. Lee, of the same mission as that with which Mr. C—— at Santarem was connected, was at the time in the city, and as there were a few other English people in the place, he kindly offered to conduct worship for us, every Sunday morning, at the house of a German merchant. Our congregation never amounted to more than nine persons, and the service consisted, besides a short sermon, of the American version of the morning prayers of the English Church. It is well known that the principal difference consists in the mention of the name of the President of the United States instead of that of Queen Victoria; but perhaps the most striking alteration is the changing of the word "wealth," wherever it occurs, into "prosperity." It would appear that our American cousins do not desire wealth!

Dr. Lee was engaged at the time of our arrival in arranging to start a mission among semi-civilized Indians, but was puzzled to know where to locate himself. Although the Roman Catholic religion is predominant, and almost universal, in Brazil, the Government tolerates other faiths, and many of the people possess liberal views on the matter. It is necessary, however, for a Protestant missionary to consult the President of the province in which he intends to labour, respecting the scene of his operations. Obviously, therefore, it is in the power of a man with bigoted opinions, or limited knowledge, to assign a sphere of action of a very unfavourable nature, one in which the utmost zeal and wisdom might be expended without securing a single convert. Dr. Lee, for instance, had been recommended—perhaps

in good faith, but through defective information—to take up his quarters on the Abacaxis: before deciding on this course, however, he did us the honour of asking our opinion. When we explained to him that it was the least populous of all the rivers we had visited, and that it seemed to be used only as a highway by which the Mundurucus might go up, once a year, to attack the unfortunate Araras, who had necessarily to conceal themselves in the most secret recesses of the forest, he at once abandoned the idea.

We recommended the colonies of runaway slaves and other fugitives on the Trombetas as a people among whom much good might be done; but their district was in another province, and it was ultimately decided to start the mission near the head waters of the Purus.

Dr. Lee was accompanied by a gentleman, a native of Surinam, whose acquaintance we had already made at a time when he was acting as colleague to Mr. C—— of Santarem. He always seemed to us very straightforward, earnest, painstaking, and devoted—one who in due course would make a suitable leader for a mission. Mr. R—— might be met every evening, about nine o'clock, passing along the streets of Manaos—with a little saucer containing a cake of soap in his hand, and a towel thrown over his arm—on his way to bathe and wash on the steps of the quay, which was, at that time, deserted. Here, in a dark corner, and in perfect solitude, such as his modesty preferred, he went through his ablutions, and then returned refreshed to his lodgings. But it happened one evening, while in his favourite spot, a large

steamer came up river, and turned into the port. Of this, however, he took no notice, as he concluded that she would go as usual to one of the mooring buoys far out in the stream. Now, she had never been in Manaos before, and for some reason preferred the quay, to which she suddenly curved round, at the same time sending up a great discharge of rockets to announce her arrival. All the inhabitants of the city flocked to the place to see and criticise the new comer, and poor Mr. R—— found himself, before he well knew how it had all happened, in the very centre of a large and bustling crowd.

Dr. Lee had wished to accompany us up the Purus, which was the next expedition on our programme, but the delay in our preparations proved too great for him, and the President gave a free passage to himself and his colleague in the next steamer making that trip. At sunset one evening we waved our adieus to them from the deck of the 'Icamiaba,' as they steamed away down towards the mouth of the Negro, thus making a start on their arduous, and, as it turned out, disastrous enterprise.

Owing to the isolation of our floating home, we had little opportunity of being brought into very close acquaintance with the people of Manaos. The few English residents, or visitors to the city, came off to see us almost daily, but the natives honoured us with little of their presence. In any case it would have been difficult to obtain much social intercourse with the latter, for the Brazilian's "house is his castle" in a sense in which the Englishman's certainly is not, and we were only once invited, whilst at Manaos, to spend

a quiet evening in a family circle. One morning when transacting some business with a gentleman in the city we were pressed by him to remain to breakfast. Now we had been long enough in the country to know that such an invitation means nothing, and at once declined it; but this gentleman feigned sincerity so admirably, that we were at last deceived. He urged us to assign a reason for our refusal, and as we had none to give, except the unmentionable one that we doubted if he meant what he said, we at length yielded an assent to his proposal. Instantly there was a change in his manner; he muttered something about another day being more convenient, and then hastily bid us good morning. As far as we could judge, this kind of thing does not arise from inhospitality, as much as from a certain unwillingness to admit strangers into the privacy of domestic life; for the same gentleman afterwards took us out for a day's excursion, and performed the part of host liberally, away from his own house.

One pic-nic, which brought us into brief contact with some of the leading gentlemen of the city, was of such a pleasant nature, and afforded us such a hearty laugh that we may be pardoned for dwelling upon it. The affair was arranged by our friends, Captain Bloem and Captain Talisman, in conjunction with Dr. Canavaro—a benevolent gentleman who now practises only gratuitously, and is well known and widely honoured for his kindness to the sick poor. He has a pleasant house in the neighbourhood of Manaos, but spends most of his time, we were told, in visiting his numerous friends, receiving everywhere a warm

welcome. The Doctor is also fond of arranging entertainments for strangers visiting the capital of Amazonia, in which capacity he has already appeared before the world in Professor and Mrs. Agassiz's 'Journey in Brazil.'

The 'Beija Flor' had been sufficiently repaired and renovated to be available for the trip, and the hour fixed for starting was the early one of 5 A.M. It seems an odd thing, to an Englishman, for deliberate choice to be made of a time of day when the dawn has not yet begun to appear, for commencing a pleasure excursion; but Brazilians invariably do this on account of the great heat of mid-day, and their custom of taking a siesta during the afternoon. On this occasion, however, there was considerable delay in the assembling of the guests, and the real hour of starting was something more nearly in accord with English notions.

The party on board the launch consisted wholly of gentlemen, amongst whom were the Postmaster of Manaos, the Commandant of the militia, and the Inspector of the Treasury of the Province of Amazonas. Dr. Canavaro was not present at the start—his appearance upon the scene being reserved for a later stage of the day's proceedings. Captains Bloem and Talisman had entire charge of the arrangements, the remainder of the excursionists scarcely knowing whither they were bound. Two musical firemen from one of the Company's vessels had been engaged to go with us, and enliven us with the strains of flute, cornet, and harmonica.

A short run up the Negro brought us to the mouth

of the Tarumá, the last igaripé we had turned aside to explore on our way down this river. Our attention had then been attracted to a house of picturesque appearance, on a point near the entrance of the creek, pleasantly shaded by two fine inajá palms; but we had much greater reason to notice it now, by the somewhat extraordinary behaviour of a number of people at its front. They were engaged in letting off a number of very noisy rockets, under the instigation, and with the active assistance, of one of the oddest-looking little men imaginable. He was short and rotund, and had a clean-shaven countenance of most comical expression, greatly aided by a huge jolly-looking nose bestridden by spectacles. A boy by his side was adding to the din by continually loading a gun, and firing it into the air with great rapidity. In the rear stood a number of men armed with the instruments of a brass band, and, at the door of the house, could be seen an elderly gentleman of dignified appearance, though clad in the not very imposing costume of a loose brown holland suit. It soon became clear that all these strange proceedings, and this large concourse, were in some way connected with our advent; for the 'Beija Flor' was steered towards the landing, whilst the two firemen struck up the Brazilian national air, to be chimed in with, and almost drowned, by the more powerful band on the shore. The Commission, on landing, were at once introduced, severally and collectively, to the gentleman in brown holland, who proved to be Dr. Canavaro. He was about to entertain us here at the house of a friend, with the assistance of the comical-

looking little man, a citizen of Manaos, who often, we were told, lent his aid to the Doctor on similar festive occasions, and who was appropriately named Senhor Banda—in English, Mr. Lard.

The next thing upon the programme was to visit a water-fall farther up the igaripé. All the original party, with the addition of Dr. Canavaro, therefore returned to the launch; and when it was announced that anyone who chose might accompany us, several Indian men, women, boys, and babies came on board. The brass band also reinforced our own, and struck up a lively air as we steamed off; Senhor Banda, and the remnant left upon the beach, discharging at the same moment another volley of rockets. From the Tarumá we turned up a branch on the right, and were soon stopped by trees growing in the water; when we at once divided into two parties, and entered the canoes which had been towed behind for the purpose. As we paddled along, under the low leafy archway of the igapo, it was pleasing to watch the other montaria glide swiftly between the bushes and tree trunks; its form, with that of its occupants, and all the surrounding foliage, so clearly reflected in the smooth inky-black water as to form a perfect reversed picture. Merry shouts of laughter, mingled with the strains of the band, rung through the watery glades, breaking the uncanny stillness of the place. A short climb, after landing, up a forest path, brought us to the edge of the fall, which far exceeded in beauty the expectations of those who made its acquaintance for the first time. Strange to say, this included nearly the whole of the excursionists, for although at no great distance

from Manaos, it is rather too far to be reached in one day by paddling, and a little steamer for the trip is of course not often procurable. No road leads out from the city in that direction, nor indeed, very far, in any direction whatever.

A large brook, coming to the edge of an overhanging shelf of sandstone rock, then plunging straight down to alight upon some huge moss-covered stones, and at once disappearing amongst them—this was the scene that met our view. Not a very grand one, perhaps, even with the added gloom of the overshadowing tropical forest, but still, as we have intimated, better than we had anticipated in this comparatively level country. It was possible to stand in the water, exactly where it fell over, and look down into the hollow without fear of slipping; whilst below, one could walk quite round the little cascade, so thoroughly did it descend clear of the precipice. In fact, here was a fall that could be minutely examined, and so to speak, handled with a facility which is rarely afforded elsewhere.

All the gentlemen bathed in the deliciously cool water of the brook, and then hastened back to the 'Beija Flor,' with a vivid consciousness that the breakfast hour must have arrived. It was, in truth, high noon, and no time was lost in attacking the provisions as soon as we had got on board. During the meal the launch returned to the house at the mouth of the Tarumá, and there the gentlemen proceeded to hang up the hammocks which, in some cases, they had brought with them, and, in others, had borrowed from the people of the house. The members of the Com-

mission, who had never allowed themselves to get into the habit of retiring in the afternoon, amused themselves in sketching or botanizing, and so the hours passed until dinner was announced.

Senhor Banda had superintended the preparation of the feast, and had spread it for us on a long table, under the shade of the trees on the beach. He now proceeded to act as head waiter, and acquitted himself in a most jovial, active, and generous manner, pressing dishes of fowl, turtle, or pork upon the attention of people who already had their plates loaded, and keeping everyone's glass charged to the brim with sauterne. Toasts followed the meal, and it was in connection with this business that the hearty laugh of the day occurred. The Amazon Steam Navigation Company, the Viscount de Mauá, the Commission jointly and individually, and several of the guests, were drunk to with musical honours. Then came the toast of the day, the health of our host, Dr. Canavaro. The greatest orator of the party, the Inspector of the Treasury, was put up to propose it, and no one who has not heard an after-dinner speech by a Brazilian or Portuguese can possibly form the remotest conception of the eloquence, the pathos, the passionate vehemence, the wealth of appropriate action and gesture, which were displayed on this occasion. The Doctor, at the head of the table, sat modestly looking down, meditating his reply. Senhor Banda, who had for a moment gone aside, and ordered the band to play, the gun to be fired, and a rocket to be discharged at the proper time, was standing by his master's side, with glass in hand, and enthusiasm on his face, gesti-

culating in concert with the orator, and expressing in every way approval of his lofty sentiments. The Inspector's peroration drew to a close, and everyone rose to his feet; off went the band, bang went the gun, whiz went the rocket; but the latter, instead of taking to the air, as any proper rocket would have done, came scudding along level with the ground, and hit Senhor Banda with considerable force, causing him to fall backward upon the ground through fright. Glancing from this broad target, it facetiously poked the worthy Doctor under the ribs, and shot under the table, entangling itself between his legs. All the party now covered their heads, awaiting with trepidation the final bang of the wayward firework, but luckily it turned out tame and harmless. No injury was done, and, seeing this, everyone burst into uncontrollable laughter. For a few moments the Doctor was wroth, and began to scold the unfortunate man who had added such an anti-climax to the Inspector's brilliant speech; but the utter ridiculousness of the whole affair soon flashed upon him, and he had, perforce, to join in our uproarious merriment.

It was now time to return to Manaos, and everyone hastened on board. Scarcely had the 'Beija Flor' made a turn of her screw, however, when Dr. Canavaro stepped forward, and stopped her with a commanding gesture. He advanced to the edge of the water with a bottle and glass, and said that he could not let us go without one more parting toast. At the close of his neat speech there was a grand display of rockets, all, happily, taking the right direction, and a tableau of

the worthy Doctor waving his glass over his head, with Senhor Banda lying on the beach by his side, energetically kicking his legs towards the sky in time with the Brazilian national air played by the combined bands.

The 'Beija Flor' quickly took us back in the deepening twilight to our quarters on board the 'Icamiaba'; and this was our last experience in connection with the launch, for a few days later she started off to return to her owner at Pará.

In the immediate vicinity of Manaos are two other small water falls, which, though greatly inferior to the Tarumá, are favourite resorts of the inhabitants, on account of their proximity and pleasant surroundings. They are known respectively as the Great and Little Cascade, but both were drowned out at this time by the flood, now at its highest level, and it was not until a subsequent visit to the city, that we had an opportunity of seeing them.

The latter portion of the time occupied in fitting out the 'Guajará' for our use was spent by us in marking out the boundaries of a large territory belonging to the Company, in the immediate neighbourhood of Manaos. It has an extensive river frontage along the Negro, opposite the mouth of the Solimões, and several visits were paid by us to the place. Explorations were made of the creeks and igaripés indenting the coast, as well as of the forest-covered interior; and then it was decided to form a camp upon the spot, to enable us to grapple with the more laborious task of cutting a line through the forest, to define the limit of the property on the side nearest to the city. Three

men, a Negro and two natives of Ceara, were engaged to assist us with this work, but they would not start upon it until they had kept the festival of some saint, and we were obliged to wait two or three days whilst they conscientiously attended to this important matter.

At length we got a start, early one Monday morning, in the middle of August; the party consisting of the Chief and Engineer, Mr. Cunningham to interpret for us, William to cook, and our three men to clear the bush. Near the mouth of the Negro is an island called Marapatá—lying off a lagoon and igaripé of the same name. Up the latter, right into the heart of the forest, our two heavily-laden canoes were urged, until they reached the head of the inlet—the point from which our labours would commence.

The first business was to erect the tents, for which purpose a space in the forest had to be cleared, and swept bare of leaves and twigs that might shelter vermin. One small snake was, in fact, uncovered in the process, a handsome little reptile, with a red and black head, and alternate bars of black and primrose colour down the body to the tail. A convenient path down to the boats had to be formed to facilitate the unlading, and it was necessary to dig a hole in the bed of the little stream to provide the camp with water. William devoted his energies to preparing a kind of kitchen, rigging up the cooking apparatus, devising ingenious shelves, and arranging all the utensils in a neat and workmanlike manner. Everyone was so busy that the time flew by we hardly knew how, and the breakfast hour had so far passed before we were aware of

*W. Lidstone, del.*

CAMP AT MARAPATÁ.

it, that this meal had to be amalgamated with dinner. At the close of our exertions, the new camp presented the appearance shown in the cut.

Perhaps there never was a place cursed with a greater variety of pests. Besides nearly all those previously mentioned—such as mosquitoes, piuums, ants, wasps, ticks, and bees—others, which had hitherto been less familiar to us, haunted this spot. One was the motuca, a green and black fly, larger than a common house-fly, whose wings are opaque in parts, but transparent towards the tips, presenting the appearance of having been cut off short and square by means of a pair of scissors. It is seldom seen much below Manaos, but is the peculiar pest of the Solimões, and troubled us somewhat here at Marapatá. It is always sneaking about one, as if it meant no mischief, but really looking out for the most unguarded place, which found, it quietly introduces its sucker, and will take a large amount of blood if undiscovered. Its bite, though many persons make light of it, was to some of us very painful, often swelling and itching through several succeeding days; and it is able to fly so cunningly to the right or left, backward or forward, that one can seldom manage to kill it. A still more formidable pest was the motuca-grande, a species of large cow-fly, with a bill fully a quarter of an inch in length. The shrivelled transparent look of its body suggests that it could hold a whole spoonful of blood when fully distended; but, happily, the insect can never draw that quantity from human subjects, for the insertion of its long sharp lancet must be at once felt, and cause the instant destruction of the creature. It flies with

great rapidity, making a loud hum; and when some five or six of these wretches are buzzing about one, threatening at any moment to give a vicious prod at any portion of the body—for clothes are little protection against such a length of proboscis—they keep one in a constant state of nervous excitement. Mr. Bates mentions that he met with this pest only in a small portion of forest on the Cupari, a tributary of the Tapajos, but since then it must have become distributed more widely, for we often fell in with it, and nowhere found it more troublesome than in the vicinity of Manaos, and here at Marapatá. The most characteristic plague of our camp has, however, yet to be mentioned; a plague scarcely experienced, as such, in any other part of our journey. It consisted of blue-bottle flies, which arrived during the daytime in swarms, and deposited their eggs on everything. A coat hung up in the tents would be so covered by nightfall, as to have changed colour, and a bag of potatoes in William's kitchen was favoured by them to such an extent, that it was absolutely corrugated with ridged masses of these disgusting fly-blows.

Not much work could, of course, be done to the boundary line on the first afternoon, but after that we kept steadily on at the rate of about three-quarters of a mile daily. The Ceara men used long-handled bill-hooks instead of the cutlasses commonly used in the Amazon valley, and it is difficult to say which made the better weapon. They were willing to commence work at daylight, but refused to continue it after four o'clock; and they seemed to know, by a kind of instinct, exactly when that hour had arrived. We

usually took our breakfast with us, and ate it in the forest, but always returned to the tents in time to get a bath and our dinner, before the darkness suddenly set in. It was difficult to know what to do with ourselves afterwards; for the mind recoiled from the idea of turning into our hammocks at half-past six; yet the camp was almost intolerable with its one dim light, and host of mosquitoes. The Chief and Engineer usually did their best to while away an hour or two with a game of ecarté, but the others gave up the struggle against the unfavourable circumstances of the place, and retired within their nets at the early hour mentioned.

The forest was intensely silent at night, except for the humming of the mosquitoes, the croaking of a few frogs, and the reiterated notes of an inquisitive, "Who-are-you." It was also intensely dark after our fire had died out, for the sparkles of the blinkers among the leaves only made the gloom more palpable. Our men, who had brought no nets with them, attempted to evade the mosquitoes by keeping up a dense smoke, and hanging their hammocks in the drift of it; but during the first two nights they kept us awake by their groaning. After that they would sleep in the place no longer, but took one of the canoes, and paddled away towards Manaos.

On the third day, the work was interrupted by numerous heavy showers. Although there is no opportunity in the forest of watching the advance of the clouds, there is usually fair warning of approaching rain. It may, in the ordinary intense stillness, be distinctly heard pattering upon the leaves far away,

many minutes before it actually arrives. The foliage of tropical trees affords but little shelter—less than can, as a rule, be obtained in an English wood—and it is necessary, therefore, to take some precautions, when showers are threatening, to avoid a wetting. This is never difficult, for it is only requisite to cut a few palm leaves, place them one over the other, and tie them up by means of a piece of bush rope in a slanting position. Underneath their ample spread, two or three persons may stand snugly sheltered from the heaviest shower.

That night the mosquitoes soon compelled us to throw aside our cards, and we could only amuse ourselves by pacing up and down for a few minutes before retiring. We noted and remarked to each other that there was just one rift in the trees overhead, of such form and dimensions that it was exactly filled by the constellation of the Scorpion, one of the most splendid of all constellations, with its gracefully curved shape and brilliant stars. The old astrological notion that the events of men's lives are moulded by the influence of the heavenly bodies, wild as it seems, was probably based upon many a well-authenticated coincidence; and it was somewhat singular that the occurrence which marked the succeeding day, in our experience, should have been preceded by the shining upon our camp of fiery Antares and the other constituents of the Scorpion, alone of all the hosts of heaven.

It was rather a lengthy walk, along the straight but rough path we had cut through the forest, to the place where we recommenced our labours in the

morning. The Engineer as usual went to the front, to direct the operations of the men, so that the line might be kept perfectly straight; and after some hours a small stream was reached. To cross this more easily, he was slightly shifting a log to form a bridge, when suddenly something stung one of the fingers of his left hand, so severely that the pain at once flew to the armpit. After sucking the small puncture vigorously, he turned over the log to look for the enemy, and destroy it; but could find nothing. Aware, however, from the agony he suffered, that the sting was a serious one, he turned back immediately to look for his companions, and ask their advice. They were not far off, but by the time the Engineer reached them, he was breathing like a distressed horse; and the Chief at once pronounced from this symptom, and the appearance of the wound, that the bite was that of a scorpion. No remedy of any sort was at hand, but it was hoped that the creature who had done the mischief was one of the white, and least venomous species, in which case the unpleasant effects would soon pass away; at any rate there was nothing to do but rest and wait the issue.

All now turned back together towards the place where William had spread breakfast for us. To reach it, a wide brook had to be crossed by means of a fallen tree, and the Chief observing that the Engineer was trembling through excessive pain, asked if he could manage to pass it without help. "I am afraid not," was his reply, as he fell at the same moment upon his knees, and then forward upon his face in the marsh, completely doubled up with cramp, which appeared

to seize every muscle of the body simultaneously. His comrades, much alarmed, hastened to place him upon a litter of palm leaves, and spread out his rigid limbs, rubbing vigorously the parts most drawn and contracted. The tongue was so twisted out of shape that the Engineer could with difficulty articulate, "I am dying;" to which his companions replied by encouraging words, without feeling more hopeful than he did that he would survive.

At the end of an hour, in spite of all exertions to maintain circulation—one relieving another in the process of chafing, and calling in the assistance of the men—the Engineer was growing quite white and cold, though still conscious. One of the Indians now found in his pocket a small piece of ginger, and suggested that it should be administered. Only too pleased to try any reasonable remedy, this was done, and proved to be the very thing needed. Scarcely had its heat begun to make itself felt, when vitality seemed to return, and more favourable symptoms set in rapidly. Meanwhile men had been sent off to the camp in hot haste for brandy and a hammock, but the place was so far distant that before they returned the crisis had passed. The hammock was, however, slung in the shade of the trees, and the patient lifted into it. Painful vomiting soon set in, accompanied by raging thirst, and a heat like that of Nebuchadnezzar's furnace. Later in the afternoon, a pole was put through the rings of the hammock, which in this way could be borne, with its occupant, on the shoulders of two men; and the whole party returned to the tents.

It was at once decided to break up the Marapatá

camp, for in truth it was full time to do so. The insect pests, daily increasing, had made the place untenable; and the distance along the line was becoming too great to be traversed with comfort. All our goods and chattels were quickly stowed in the two montarias, and very pleasant to everyone was it to leave the shadow of the forest, and emerge first upon the igaripé, and then upon the wide Negro. Our cool airy quarters on board the 'Icamiaba' never seemed more delightful than that night, after our recent experiences of gloom and discomfort.

The Engineer was obliged, after his severe suffering, to lie by quietly for one day, gradually getting into tone again as the hours wore on, but on the succeeding morning he was able to continue his work upon the boundary line. The men received him almost as if he had returned from the grave, the eldest of them taking off his hat, and making a kindly speech about the pleasure they felt in seeing him to the fore again. No attempt was made to form a fresh camp, but daily as the line progressed towards the back of the city, we paddled up the nearest igaripé as far as we could go, and then struck off, through forest trails, towards the place where we had finished on the previous evening.

A streak of misfortune seemed to hang about the Engineer until the close of the week; for on the last day of it, he was directing his men to cut down a small tree, and slapped it with his hand as he gave the order, without noticing a large mass of hairy caterpillars, of the same colour as the bark, collected upon it. The open palm was instantly stung as if by nettles, and a white rash made its appearance, which itched for

a long time most disagreeably. This, however, was a trifle, after the more serious accident which had so nearly brought to a close the life of one of the authors of this book, and made the 20th August, 1874, a memorable day to him for ever.

Several more days were spent in completing the line, but little of interest occurred. On one occasion we met with another huge toad, like the one seen at the Barreiras, with immense knobs on its shoulders, of the size and shape of hens' eggs. Either some one had played upon it the disreputable trick which destroyed the agility of Mark Twain's "jumping frog," or else the feebleness of old age had overtaken it, for the poor animal's attempts to leap resulted in the most lamentable failure. With the utmost exertions it could only flop onward some three inches.

On another occasion, we came upon a common earthworm, crawling on the pathway, of such Amazonian proportions that it measured just two feet six inches in length, and was as thick as one's finger. We sometimes saw, in the forest, hollow tubes of moist clay rising in the form of a human finger from four to six inches above the ground, and more than an inch in external diameter. They were closed at the top, quite smooth on the inside, but somewhat rough, though of regular shape, without. These must be the homes of just such huge worms, but on breaking off a tube we could never see the tenant, nor could we, with rough tools, dig deep enough to unearth it. At the first suggestion of danger, the worm must withdraw with great rapidity to the bottom of its run.

When our forest work was completed, the end of

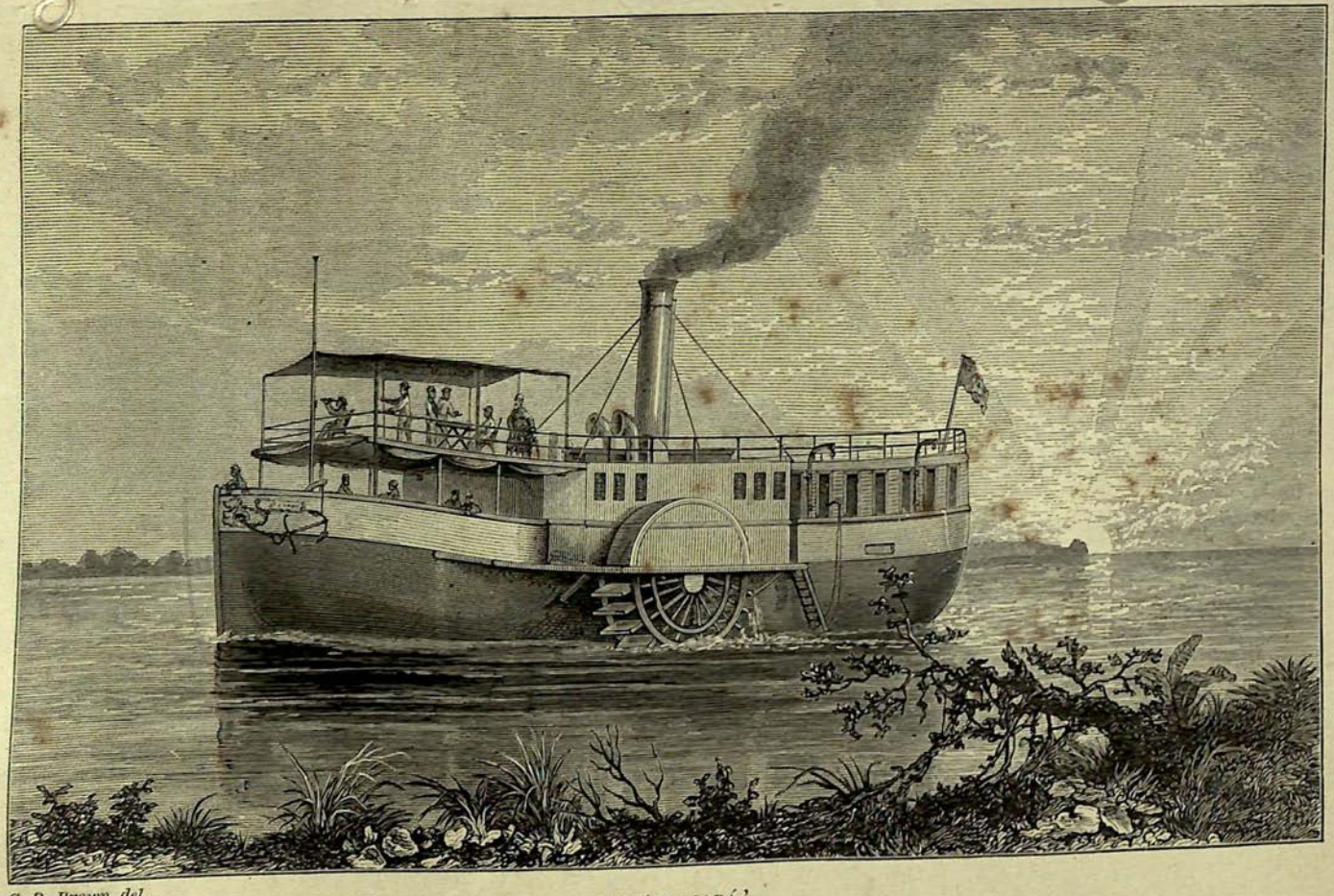
our stay at Manaos was drawing near. We shall ever remember the look of the wide expanse of harbour before the city, as we so often beheld it from the open saloon of the 'Icamiaba'; the gaily painted steamers reflected on the inky-black surface, and the water horizon up river receiving into its bosom every evening the blood-red orb of the sun setting in full glory. A very different aspect was presented to our view on one of the last evenings of our stay in the place, when a trovoado of unusual severity swept suddenly down upon the Negro, lashing the dark water into white foam, and drifting from their moorings the Company's steamer 'Inca,' the 'Guajará,' and a large batelõe; placing all in imminent peril of shipwreck. The loud shouts of the sailors, and the rattling of chains, as anchors were run out, mingling with the uproar of the tempest, were in keeping with the wildness of the scene. The steamers were happily secured, without injury, but no one looked after the batelõe, which was driven far away down river and stranded in the forest near the mouth of the Solimões.

## CHAPTER XIX.

### ON THE PURUS.

The 'Guajará' ready — Trial Trip — The President on Board — Description of Steamer, Captain, and Crew — Leave Manaos — Winding Rivers — Purus Scenery — Night on the Praias — Landslips — Tiger — Fishing — Catching Turtles — Pamary Indians — Singular Disease — The "Doldrums" and "Roaring-forties" — Piums — Process of Manufacturing India-rubber — Character of Men employed in the Trade — Mabidiri — Cursed by an Old Man — Meeting with Mr. Piper — A large Landowner — Silk-cotton Trees — Geology — Freaks of the River — Monkeys.

THE month of August had nearly drawn to a close when it was at last announced that the 'Guajará' was ready for the use of the Commission. So extensive, however, had been the repairs and alterations carried out in her—involving, amongst other things, the partial taking to pieces and putting together again of the engine—that it was judged necessary to pass her, like a new ship, through the ordeal of a trial trip. It was decided to make a kind of pic-nic excursion of the event, and to issue our invitations to many of those friends who had helped to make our stay at Manaos so pleasant. First, there was the President of the Province, whose urbanity and friendliness had been sufficiently experienced to make us feel sure that he would, if asked, consent to honour us with his presence; nor were we disappointed in this, for his prompt reply was in the invariable formula used by Brazilian gentlemen when accepting an invitation—



*C. B. Brown, del.*

THE 'GUAJARÁ.'

"Pois não?" (Why not?) Dr. Canavaro was unfortunately absent from home; but Captain Bloem, Senhor Guimarães the Company's Agent in the city, Captain Haag of the Commission engaged in surveying the lands of the Madeira, and other gentlemen, were able to be with us on the occasion.

The party assembled between seven and eight in the morning—a somewhat early hour, though hardly up to the usual mark in these tropical lands. Our new steamer—the 'Guajará'—was of course looking her very best; brilliant with her new red and white paint, her upper deck covered with a snowy canvas awning, and Brazilian flags flying both at her bow and stern in honour of the President's visit. Her speed at starting was not, however, in accordance with her showy appearance, for all the joints of the engine were naturally stiff, after the treatment to which it had been recently subjected, but as the day wore on they grew more pliant.

Unfortunately no definite plan had been arranged for the day's proceedings, and the choice of a destination was submitted to the company. The President had brought with him a gentleman of very sociable temperament, who at once suggested Lake Hyanuary as a suitable place for a pic-nic, and with his proposal everyone fell in. It is a small sheet of water, whose banks appear to be rather thickly inhabited, lying between the Negro and Solimões, and connected with the former river by a narrow winding channel. Into this channel the 'Guajará' turned, but just as everyone was admiring its beauty, our course was suddenly arrested by dense masses of floating grass (capinga)

which filled the whole passage as far as the eye could reach. It was useless to attempt to get through such a barrier, and we were compelled to return to the Negro, from which we went on to the Solimões.

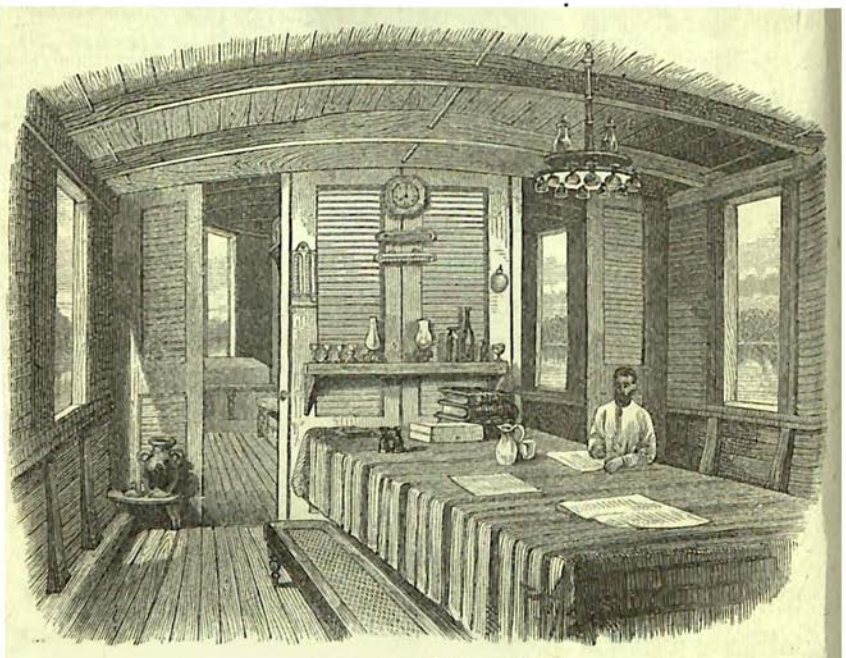
Breakfast was now announced, and all descended to the saloon, where the President took his place at the head of the table. The dishes then uncovered before the guests were a somewhat strange mixture of cheapness and costliness. The most prominent was a roasted pig, which had come into our possession free of charge; for the poor little thing had been found struggling with the current far out in the river off Manaos, and having been rescued from thence, but no owner found to claim it, had been fattened on board the 'Icamiaba' for this occasion. On the other hand, there were fowls and ducks upon the table, each one of which had cost no less a sum than four milreis (8*s.* 8*d.*).

No stiff formality was observed in connection with the meal, the President himself setting the example of the free and easy. The 'Guajará' had now turned into the channel, leading from the Solimões into the Amazon, which appears to be an excellent place for catching a fish called the *tambaki*. It is not much unlike a salmon, and is usually caught by rather a strange stratagem. The food of the fish is the fruit of a certain palm, whose fall into the water, when ripe, instantly attracts the attention of the tambaki, which makes a rush upon it and devours it eagerly. This falling of fruit is therefore simulated by the fisherman, who taps the surface of the river with one of these berries placed at the end of a rod, while the hook attached to the line held in the other hand is baited in

à similar manner. The fish deceived into the belief that the palm is shedding its seeds, swims eagerly to the spot from which the sound proceeds, and is caught by swallowing that in which the hook is concealed. Numbers of men were seen engaged in this way, as the 'Guajará' steamed onward, when the President, rising frequently from his chair, rushed to the nearest window of the saloon, and thrusting his head and body far out, waved his hands to attract attention, calling in a stentorian voice, "O my countrymen, have you any fish?" His high example, of course, made this proceeding fashionable, and everyone was soon running to and fro between the table and windows, watching the scenes we were passing, and repeating the inquiry "O! meu patricio—tem peixe?" Several toasts and sentiments were proposed and honoured at the end of the breakfast, but set speeches were not in favour.

After the gentlemen had returned to the upper deck, it was proposed to visit another lake on the opposite side of the Amazon; but here we were as unfortunate as at Hyanuary, for a large tree had fallen quite across the narrow entrance. We were now at the end of our resources in this direction, and turned about for Manaos, skirting the high coast on our right. Upon the beach at one place, under the shadow of some trees, sat a gentleman comfortably swinging in his hammock. He had evidently landed from his boat for a rest; and some suspicion that we know who this individual must be, made us level our field glasses at him, and exclaim almost simultaneously —"Canavaro!" It was indeed the Doctor, and the

'Guajará' was put about to greet him. Seeing this, the worthy man grasped at once a bottle and a glass, which he had placed conveniently by his side, and rising in a dignified attitude, went through the mimic performance of drinking all our healths. Repeatedly he waved both bottle and glass above his head, and there is no knowing to what lengths he might not have proceeded

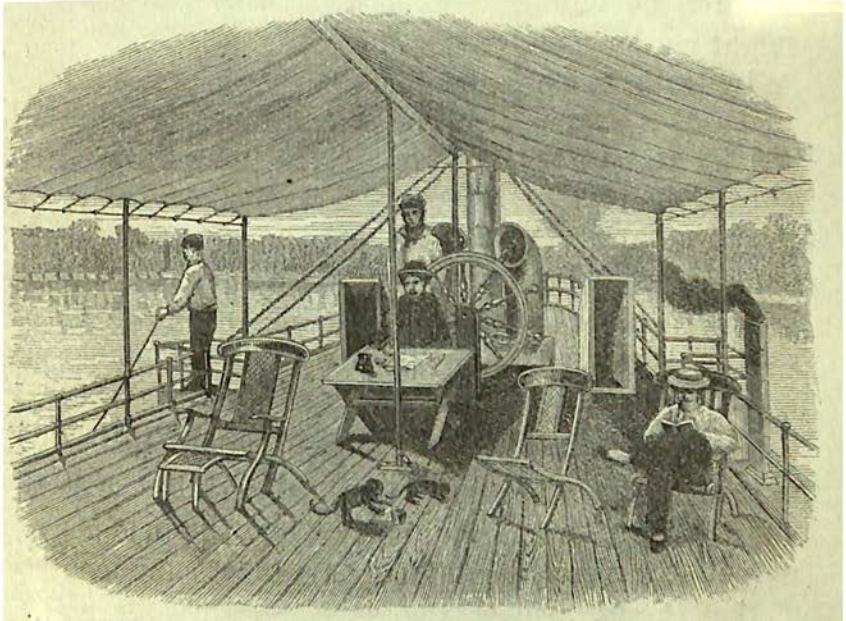


SALOON OF 'GUAJARÁ.'

in doing us honour, had not a violent trovoado at that moment struck us, driving us all to the shelter of the saloon, and obliging the Doctor to hurry down his hammock before it became soaked by the pitiless rain. The storm was only just abating as we reached Manaos, and brought our trial trip to a close.

It was agreed on all hands that the 'Guajará' had behaved very creditably, that it was only necessary

to tighten a screw here, or oil a bearing there, and that we might arrange definitely to start on the long voyaging yet before us, directly after the arrival of the next steamer from Pará. The Commission was therefore on the threshold of its third era, each period excelling in grandeur that which went before it. In the first, we had trusted chiefly to boats; in the



DECK OF 'GUAJARÁ.'

second, we had our little launch, the 'Beija Flor'; and now, we were about to start in a steamer of very fair dimensions, providing us with ample accommodation. The 'Guajará' had two decks. The lower one was partly enclosed by jalousies, forming a neat saloon, and two large cabins in the stern behind it. The upper deck was open, except that the part before the funnel was shaded by an awning. It was also

furnished with chairs and a table, for here the important work of mapping was performed, and this airy spot was the favourite haunt of the Commission. All this was a great improvement upon the cramped condition in which we had been obliged to live in the former periods, and had our stay in Amazonia been much more prolonged, and similar progress been made, there is no telling to what a pitch of grandeur we might not have arrived!

In truth, some amount of comfort was needed to make this last part of our voyaging tolerable, for the interest of the Amazon valley lessens considerably after passing Manaos. The Solimões or High Amazon is, as will be seen, not an attractive river, nor are any of its tributaries very interesting. No hills of any sort are encountered, towns are small and far between, and pests abound to a most disagreeable extent.

Daybreak had not yet appeared on the morning of September 4th, when the 'Guajará' weighed anchor and started at last, fully prepared and equipped for a journey of several months. The steam to the mouth of the Purus, against the swift Solimões current, occupied three entire days, but opened up to us nothing of interest, except, perhaps, the pleasant peep of Lake Manacaparu when we turned into its mouth to obtain wood. During these days, however, we were able to settle ourselves comfortably into our new quarters, and to make the acquaintance of our new crew. All those who had been with us on board the 'Beija Flor,' had the option of going with us again if they pleased; but the Indians of South America have no dog-like attachment to persons, nor cat-

like attachment to places, their delight being apparently to revel in constant change, both of their homes and friends. Not one therefore returned to us—a fact that might have occasioned some surprise had we not long before noted their characteristics, in connection with the oft-changing crews of the Company's larger steamers.

The 'Guajará' was commanded by Captain Hoepfner—a German, speaking both English and Portuguese in addition to his own language. We found him excitable, but agreeable, and turned even the first quality to good service, by often drawing him, in an otherwise dull hour, into some political discussion, when the warmth with which he usually expressed himself afforded us much amusement. The engineer was an Englishman, and had the help of an assistant. A boatswain, two firemen, two sailors, two wood carriers, a steward, a cook, and our servant William made up eighteen as the total number of persons on board the steamer.

Of these—omitting the captain, engineer, and ourselves—the two men of most distinctly marked individuality were perhaps the boatswain and cook. The former was probably of Portuguese extraction—a short man with a black beard and grave appearance. Possibly he never smiled in his life. All his work was performed in an earnest business-like way, as if under a stern sense of duty, and entirely without regard to the manner in which it might affect the comfort of any bystander. If he happened to pitch a pail of water over one, or to knock one on the head with a spar, or to trip one up with a rope, he asked no pardon, for he regarded it as an unavoidable

accompaniment of his work, which in his eyes was the all-important matter.

The cook was a lithe young fellow of sallow complexion and curly hair. He really did seem to become attached to the Commission, and frequently made presents to one or other of its members, notwithstanding that his wildness and audacity often got him into trouble. He seemed most himself when splashing about in the water, where the fishes themselves appeared scarcely less at home. When diving, swimming, or aqueous business of any sort, had to be done, he was worth any two of the sailors, and dashed into it with all his heart, leaving the Commission's breakfast or dinner to burn and spoil, unless the threatened mischief were happily averted by some other person.

Early on the morning of September 7th we entered the mouth of the Purus, the most important representative of a class of river with which we were now to become familiar, but of which we had hitherto seen no examples. These are the muddy-water tributaries of the Solimões, whose whole course is through the Amazon plain, touching no hill from their source to their junction with the main river, but winding so excessively that they are the true Serpentines or Meanders of the world. Our maps of these streams, showing their elaborate double and triple curves, resembled patterns for ladies' braid-work; and it often happened that a hard day's steaming, round their involved bends, brought us at night to a point only a few miles, in a direct line, from the place we had left in the morning.

The Purus itself has a straight and somewhat wide reach or two near its confluence with the Solimões, to which it is joined by several channels, both above and below its proper mouth. Beyond these reaches the great sweeps at once commence, the river being here from half a mile to three-quarters in width. From thence onwards it narrows slowly and almost imperceptibly, until at the point at which we turned back —about one thousand miles from the Solimões—it has diminished to a breadth of one-sixth of a mile. The valley of the Purus averages probably twenty miles across, and in its voluminous windings the channel sometimes touches the limit on one side, and sometimes on the other. The river in the wet season is sixty feet higher than in the dry—an enormous rise, which may give some idea of the amazing rainfall of these regions, for none of the water is derived from springs, or melting snow. During these floods the Purus is not content to occupy the comparatively narrow bed of which we have spoken, but overflows its banks, fills its entire valley, and leaves the mark of its highest level on the trunks of the trees in the forest, about five feet from the ground. It chanced that our voyage upon the river was at a time when it was shrinking to its smallest size; but it can easily be understood that it is possible to be there when dry land is a rarity, only to be met with at intervals of fifty or a hundred miles.

When one glimpse has been obtained of the scenery of the Purus, or its sister streams, all has been, practically, secured of what they have to offer in this way: a description, therefore, of any one part may

serve for the whole. On the outer or concave side of each bend might be seen a clay bank, about forty or fifty feet in elevation, surmounted by an even wall of perpendicular forest, about a hundred feet high. On the other side was a large crescent-shaped sand bank or *praia*, behind which was a perfectly regular line of alders, then a higher line of cecropias, backed by the forest rising gradually to its uniform level. Sometimes the sweep of the river was to the right, sometimes to the left; and occasionally the more elevated terra firma at the valley's margin replaced the usual bank, or the house of an india-rubber collector made its appearance; but except these slight variations there was absolutely nothing to break the long monotony. Although we had necessarily to observe the objects on the bank very closely on our way up, in connection with the making of the map, it was almost impossible to identify any particular spot in returning, without taking compass bearings, or reckoning where we ought to be by our running time.

There is not a single town or village upon the Purus. Here and there several houses may occupy the same barrieras, but there is no street or church, neither do the inhabitants seem to hold any social intercourse with each other. We never had the opportunity of witnessing a festive dance, as in former trips; and our evenings would have been excessively dull but for the glorious runs we got upon the praias, when we landed to take star observations. Some of these gracefully curved sand banks, occupying invariably the inner side of the river's sweep, are fully two miles in length; and, though slightly corrugated by

the action of the current, are composed of fine firm sand, pleasant to walk over. Here we could stretch our legs, little exercised during the day, and, after attending to our business with the sextant, indulge in the letting off of some effervescence of spirit. Small practical jokes were not infrequent, such as the imitation of the cries of a tiger-cat from behind a bush, to startle other members of the party who had gone off for a separate stroll, and enjoy the sight of their sudden stampede. It was not difficult to personate a jaguar to the eye of a somewhat distant comrade by going down on all fours and scampering along in a rollicking manner, for objects loomed large and indistinct in the flickering moonlight. On one occasion, some of us felt sure we saw a woman sitting alone, statue-like, upon a rise in the sands, but, on a nearer approach, it proved to be only a demi-john, or large black bottle used for cachaça, called here a *garafão*.

Noises, like loud and prolonged thunder, startled us one evening as we were getting observations. The sky was cloudless, so that they could not proceed from a storm; and on listening more attentively the sounds resolved themselves into three distinct kinds —grinding, snapping, and splashing. Then we knew that it was a landslip; a portion of the river-bank on the other side was giving way, with the giant trees growing upon it, and becoming engulfed in the water. Huge waves rolling in presently upon the sand bank where we stood confirmed this view of the case, and in the morning we saw the new scar along the shore. This kind of thing is often happening upon the Amazon, and the muddy-water tributaries, but we

only once had the opportunity of actually witnessing it in progress.

On another occasion, when the night was very dark, a tiger noted the light of our lantern as we went ashore, and roared at us from the opposite bank. It continued to do so as long as we remained on the sands, and seemed to be marching up and down, looking for a place to cross, for sometimes its greeting came from a point farther up river, and, at others, lower down.

Our sailors usually spent their evenings upon the praia also, catching fish by means of a circular throw net, under the superintendence of our steward; and usually captured great quantities. It is well known that the variety of fishes in the Amazon and its tributaries is wonderfully great. Many of them, however, are not very good eating, on account of their numerous bones, or the softness of their flesh. A very large proportion have skin instead of scales, often fantastically and gaily marked; and long whiskers give them an odd appearance to English eyes. About this time the turtles were in the midst of the business of laying their eggs, and soft places in the sand indicated to us the locality of their nests, out of one of which as many as one hundred and fifty could often be taken. The sailors sometimes nearly filled a montaria in the course of a night, and as we could not eat a tenth part, placed them over the engine to dry, that they might take them back to their friends at the end of the voyage. The turtle's egg is round, and provided with a skin instead of a shell. Only the yolk is good, for the white never solidifies in cooking, and must be poured off.

The early morning is the favourite time for depositing the eggs, and sometimes the men went ashore a little before we weighed anchor, to intercept the turtles on their way back to the water. They sometimes picked up one or two, but at length a morning arrived when we got a glorious haul. The 'Guajará' swept round a bend, soon after starting, and opened a praia that was literally black with hundreds of them. The heads of hundreds more appeared above the surface just off the sand bank, like so many corks floating upon the water. At this amazing sight the steam was shut off, both boats quickly lowered, and several men dispatched to capture all they could. The moment they landed, the bulk of the turtles scuttled into the river, but others were too far away, and the sailors ran from one to the other turning them over upon their backs, where they lay quite helpless. In this way more than forty were placed *hors de combat*; but now began the most laborious part of the work—that of getting them on board. A full-grown turtle is about four feet in length and a heavy burden for a man, consequently it was necessary to turn them over one by one, and let them walk down to the water's edge, gently pinching their tails if they showed any obstinacy, and taking care not to let them escape into the river at the last moment. The solemn way in which the boatswain, according to his custom, went about this task greatly amused us: others were full of fun and excitement, but he smiled not, nor exhibited the least enthusiasm. Performing his duty, as he did, with a stern air of determination, he was nevertheless more unfortunate than the lighter-hearted workers, and sometimes allowed his victim to elude his care.

Once, the turtle he was driving observed a side creek, which he had failed to notice, and made a bolt for it, scuttling down the steep sand-slope that enclosed it. The boatswain under the obligations of duty followed, and found himself in a moment up to his middle in water. He managed to grasp the turtle, however, and the two struggled awhile for the mastery; but victory rested with the one that fought in its own element, for the other, fast sinking to his throat, was obliged to turn his attention to the question of self-preservation.

At the end of an hour thirty large turtle had been got on board the 'Guajará'—as many as we could conveniently carry—and the others were turned over on their feet and allowed to escape. A supply of fresh meat had thus been laid in for many a day, the total value of the catch being, according to Manaos prices, about 25*l*. The victims were penned in the bow, on the lower deck, and required no further attention than to be occasionally refreshed by having a pail of water thrown over them. We frequently saw on this and other tributaries, as well as on the main river itself, small enclosed ponds behind the people's houses, with turtle stored in them; and often heard them called, as a kind of mild joke, the "cattle of the Amazon." The legs of the turtle form fair-sized joints for roasting or boiling, but the favourite dish consists of some of the flesh minced small, placed on the lower shell, covered up with farinha (a rough species of tapioca), and baked. There is a smaller kind of turtle than the one we have been describing, known as the "tracaja." It is quite as good eating as its larger relative, but one tires of either after tasting no other

sort of meat for several weeks; not more quickly, however, than one would, perhaps, grow weary of any other animal food, after a long continuance of the same.

Upon several of the praias we saw encampments of Pamary Indians, bearing a striking resemblance to gipsy camps at home. This tribe is only just beginning to take on a slight varnish of civilization, but retains most of its old habits, and consequently interested us more than almost any other that we saw. They have the peculiarity of not using hammocks, but sleep on the floor of their tents, which are built of the same form and size as gipsy huts in England, though of a different material; mats of plaited palm leaves being the chief component. Large boughs of trees, stuck about here and there in the sands, provide some slight shelter from the glare of the vertical sun, and in the shadow of them the women and children sit, carrying on their various occupations, for the heat would be intolerable under their low tents. At nearly all the encampments, we noticed several curved sticks, like croquet hoops, arranged along the praia, the remains of former camps. When the river rises, the huts are placed upon rafts, floating upon some retired lake, where they remain all through the wet season.

A singular disease attacks the skin of the Pamary Indians, from which scarcely a single member of the tribe seemed to be free. It is a kind of leprosy, appearing at first in blue patches, which gradually turn to white, forming a marked tint upon their dark skins and causing them to present a singular

mottled appearance. The complaint must be infectious, for we observed a young Brazilian, who employed some Pomarés in wood-cutting, with the spots appearing upon the backs of his hands. It is known as the pomaré or puru-purus disease, after the different names of the tribe. On one occasion we met as many as nineteen canoes filled with these Indians coming down river. In most cases the women were paddling, and the men standing out on the little shelves in advance of the bows, ready to shoot fish or turtle. An elderly man amongst these had made himself a ghastly object, by painting the whole of his face a deep blood red; but it was probably done to hide what he considered the greater disfigurement of the leprous patches.

At a place called S. Vincente, a party of Pamarys, six or seven in number, handed the wood on board the 'Guajará,' and we then had a good opportunity of observing them closely. They wore their coarse black hair very long, except that it was cut in a straight line on their foreheads, just above their eyes. One old man of the party was, we were told, the chief of the tribe, but he was only distinguished by having the shabbiest suit—denoting that he had taken to clothes longer than the others—and by the intelligent way in which he smiled when anything amusing occurred, whereas his companions took no note of it, but worked on stolidly. There must have been a terrible tragedy at some time or other in the history of this tribe, for an island—one of the very few in this river—which we appropriately saw in the light of a blood-red sunset, bears the terribly

significant name of the "Island of the slaughtering of the Puru-purus"; but we could learn nothing of the story.

Tales were not wanting on the Purus of really savage Indians, but as usual we saw them not. We passed, however, two unfinished houses from which the people had fled, because they had heard during the night the sound of a horn in the forest, the usual signal of attack with the particular tribe they dreaded. They were still staying with a neighbour, unable to summon up sufficient resolution to go back and resume their building.

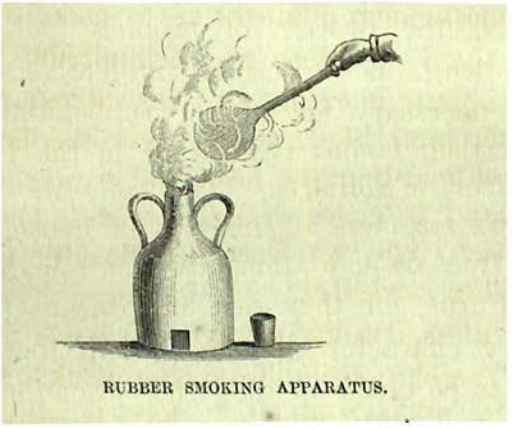
The wood on this river, as on others, was often of indifferent quality. It appears to be much easier to split and chop the kind which scarcely produces any heat, consequently there was great temptation to palm off upon us this inferior article; and once we took a cargo on board which was such wretched stuff that it would not even carry us down river. The flow of the Purus is, as far as we could determine it, at about the rate of one and a third mile per hour—not a very swift current, but one that we could do little to dodge, as we were compelled, in the absence of a pilot, and the low state of the river, to keep in the run of the stream. When we could do little more than crawl round the great bends, we were accustomed to describe ourselves as being "in the doldrums"; but when, by good hap, more rapid progress was possible, we rejoicingly alleged that we were "in the roaring-forties."

The worst of going slowly was that it gave opportunity for hosts of piums—the peculiar pest of the

tributaries of the Solimões—to come on board, and make life a burden to us. These indefatigable little creatures, already described in our chapter on the Tapajos, as punctual as any clock, commenced operations at six in the morning, and, after twelve hours of activity, retired to rest at six in the evening. They often came in such numbers as to make the air thick, and on these occasions the Commission presented a strange appearance; for it was necessary to wear a handkerchief, like a hood, over the head, for the purpose of guarding the neck and ears, and stockings on the hand to cover well the wrists. On the upper part of the river, we were occasionally troubled by very minute sand-flies.

Every afternoon we observed, as we steamed along, wisps of smoke rising from the banks at frequent intervals. These indicated the places where men were engaged in the process of manufacturing india-rubber—the Purus being quite the head-quarters of this business. Anyone who wishes to engage in it selects a district of, perhaps, thirty or fifty square miles—as much as he thinks he can work—and registers it for a trifling sum, by which means it is secured to him as long as he wants it. He builds a rough house upon it, and engages all the Indians, both men and women, who reside in the neighbourhood to help him. These sally out, every morning, for a round through the forest, tapping the zeringas, and bringing home the juice, which is a perfectly white liquid, of the consistency of goat's milk. It is now necessary to turn this fluid into a solid, for which purpose the seeds of certain palms (only two sorts

will do) are taken, and placed in an earthenware jar, of the shape shown in the annexed diagram. Here they are burnt, the square holes at the bottom of the jar admitting a draught, and causing a dense smoke to issue from the neck—the smoke to which we have alluded, as seen by us from the river.



RUBBER SMOKING APPARATUS.

The operator now takes a kind of paddle or racket bat, and holds the blade over the jar, pouring the zeringa juice, cup by cup, upon it, and turning it deftly round to bring all parts into contact with the smoke. The effect is like magic, for the fluid instantly fixes and adheres to the wood, or to the rubber already formed. Thus the process goes on until a solid lump is made, about half an arroba (16 lbs.) in weight, when a slit is cut near the handle, and the blade drawn out; leaving a piece of india-rubber, roughly shaped like a cheese, ready for market. It is the solidifying of the rubber, layer by layer, in the smoke, which gives it the laminated and dark-coloured appearance with which everyone is familiar. By pouring the juice in the same way on clay models of birds, beasts,

and fishes, the Indians make playthings for their children; and in a similar manner boots and shoes are manufactured.

It is said that the rubber improves in quality the farther one goes up river to get it, consequently the Purus is less thickly inhabited on the lower portion than above. During the wet season, when the valley is flooded, the process of tapping the zeringas is stopped, while pests become intolerable, so that it becomes necessary for all the rubber merchants to return to their homes at Pará, or in the towns along the Amazon or Solimões. This emigration causes the Company's steamers at times to be densely crowded. No fruit trees or plantations are seen round the houses on the Purus, for they are only meant to be of a temporary character, abandoned half the year, and intended to be given up altogether when the owner has made his fortune. We found the men who occupied them as uninteresting a class as possible, with no thoughts beyond the india-rubber trade. Their one topic of conversation was about the number of "contos dos reis" (roughly, "hundreds of pounds") they were making yearly; whereas their neighbour, they usually averred, was on the verge of bankruptcy. The said neighbour, when we reached him, had the same tale to tell, but with a reverse application.

There were, of course, some exceptions—some men of more general intelligence and wider views. We spent, for instance, a pleasant time, both in going up and returning, with Senhor Fonseca of Mabidiri, who sends off yearly as many as 1200 arrobas of rubber to Pará—the largest amount, we were told, produced on

the river, except the 2000 arrobas exported annually by the Senhors Ramos of Sepatynim. Mabidiri is a picturesque three-storied house, placed at a very sharp bend in the river, in such a manner that the occupier can, so to speak, get a view up and down river at one glance. It is only a thatched open-sided shed, furnished with empty boxes, which form chairs, tables, couches, sideboards, and what-nots, according to their size or shape. Senhor Fonseca, whose acquaintance we had previously made on board one of the Company's steamers, spoke English, and treated us very hospitably. He had spent a night in catching turtles just before our first visit, and had secured the enormous number of 500, of which he pressed us to take as many as we pleased, but we were already supplied; he therefore sent on board instead some fruit, a cheese, and a bottle of wine. On our second visit he was entertaining a priest from Manaos, who was taking a turn on the river, in a neat little cuberta, resplendent with light-blue paint, and a flag with a red cross, for the purpose of marrying or baptizing any who were willing to engage his services for the purpose. His charge for tying a matrimonial knot was, we were informed, 100 milreis, about ten guineas.

Our journey up river occupied twenty-one entire days, and we turned about to come back at a point a little above Hytanahan, a single house which forms the limit of the Company's line on this river. We had expected to see something of Dr. Lee and his colleague at this place, but learned that they had embraced the opportunity offered them of going farther on in a private launch.

Incidents of travel were not likely to be very numerous on a river such as the Purus, or on board a well-appointed steamer like the 'Guajará,' but we occasionally varied our proceedings by some slight accident.

We were all standing chatting together on the upper deck one evening, enjoying the sunset hour and the cool breeze produced by the rapid motion of the 'Guajará' as she steamed down river in the roaring-forties, when suddenly—just as the conversation had touched upon stranded ships—she ran over a submerged tree, of which there was not a sign upon the surface of the water. The deck seemed to heave beneath us as the 'Guajara' climbed a foot higher in the water, then tilted over on one side at a frightful angle as she threatened to capsize, and, finally, resumed her normal condition as she righted again. It was all over in a moment, but we looked at each other with blank consternation, for it was impossible to say what damage might not have been done by such a performance. The holds were searched at once for leaks, but nothing discovered, and we congratulated ourselves upon getting off so easily. These felicitations proved premature, however, for when the 'Guajará' rounded her first bend next morning she heeled over terribly, and remained on her side, until a sweep in the opposite direction carried her over the other way, and left her there. It was now found that she had eight inches of water in her forward hold; but fortunately she was built in water-tight compartments, and the leak proved to be at a part where it could be easily got at and stopped.

One afternoon, when creeping up river in the doldrums, we noticed upon the bank close to which we were keeping, an elderly man engaged with others in making rope. He appeared to take great offence at the numbers of field glasses levelled at him, and coming to the edge, shouted down to us, "I hope you may run aground on a sand bank," adding his curse; but, as on another celebrated occasion, at Rheims, for a long time "nobody seemed a penny the worse." His evil wishes must, however, have lingered in the air to catch us on our return, for, just three weeks later, shortly after we had passed the old man's house we touched bottom, and, a few hours later, ran hard aground on the shallows near a difficult piece of navigation, called the "Narrows of Itaituba." Anchors and hawsers were got out, and every effort made to get the 'Guajará' afloat again, but in vain. Our only hope now seemed to lie in emptying the boiler and putting all the fuel and baggage ashore; but before this work had advanced very far it was discovered that the quiet operations of nature were slowly effecting for us what was beyond our own strength. The steamer was lying broadway to the current, which forced itself through the corrugations of the bank under her keel, moving the fine particles of sand, and slowly deepening the water beyond. Inch by inch, almost imperceptibly, the 'Guajará' was moving onward as this change was accomplished, and it was only necessary for us to wait patiently the issue. About 10 P.M. the Captain, who had been all the time in a state of wild excitement, joyfully announced that we were afloat. We had been aground seven hours.

One of the memorable things on this river was our meeting Mr. Piper, the American, whose name is so well known in connection with schemes of Bolivian colonization. A rumour had shortly before been circulated, and had gone the rounds of European and American papers, to the effect that he had been killed by savage Indians at the head waters of the Purus; but happily he had just turned up to refute it. We noticed his little launch lying under the bank, at a place called Labria after the owner, as we went up river, and had smiled at its rough appearance, its innocence of paint, its funnel rudely constructed of biscuit tins, its ragged curtains, and its untidy awning of dried palm leaves. At this time, however, it was not convenient to stop to form the acquaintance of its master, but a few weeks later, on our way down, we made a point of doing so.

The people of Labria, to whom we first paid a visit on landing, told us that Mr. Piper was ill, and alone; but knew nothing more about him. We found him, on our return to the waterside, standing on the shore, feebly endeavouring to haul the launch nearer to the landing, but the task was evidently too much for his strength, and he was glad to accept our offer to manage it for him. He now accompanied us on board the 'Guajará,' and as he sank wearily into a chair, we were able to note how ill he looked, and that he had fallen into that unkempt condition of dress and person natural to an invalid who is too weak to help himself, and too indifferent to care about his appearance. He explained that he had not, until then, felt able to get up and leave the launch, since he had arrived at this

place, some weeks before. He had been deserted by everyone up river, but had managed to get back thus far alone, working his craft entirely without other assistance, and being his own captain, engineer, stoker, and steersman. The fire-ants, which swarmed on board, had bitten his feet and legs until they had become swollen and ulcerated; and the strain upon the system of such continuous labour had at last broken him down. Senhor Labria was a friend of his, and he had hoped to receive help and attention here, but unfortunately he had gone to Rio de Janeiro, and the people he had left in charge cared nothing for him, and had not even visited the launch to see if he were alive or dead.

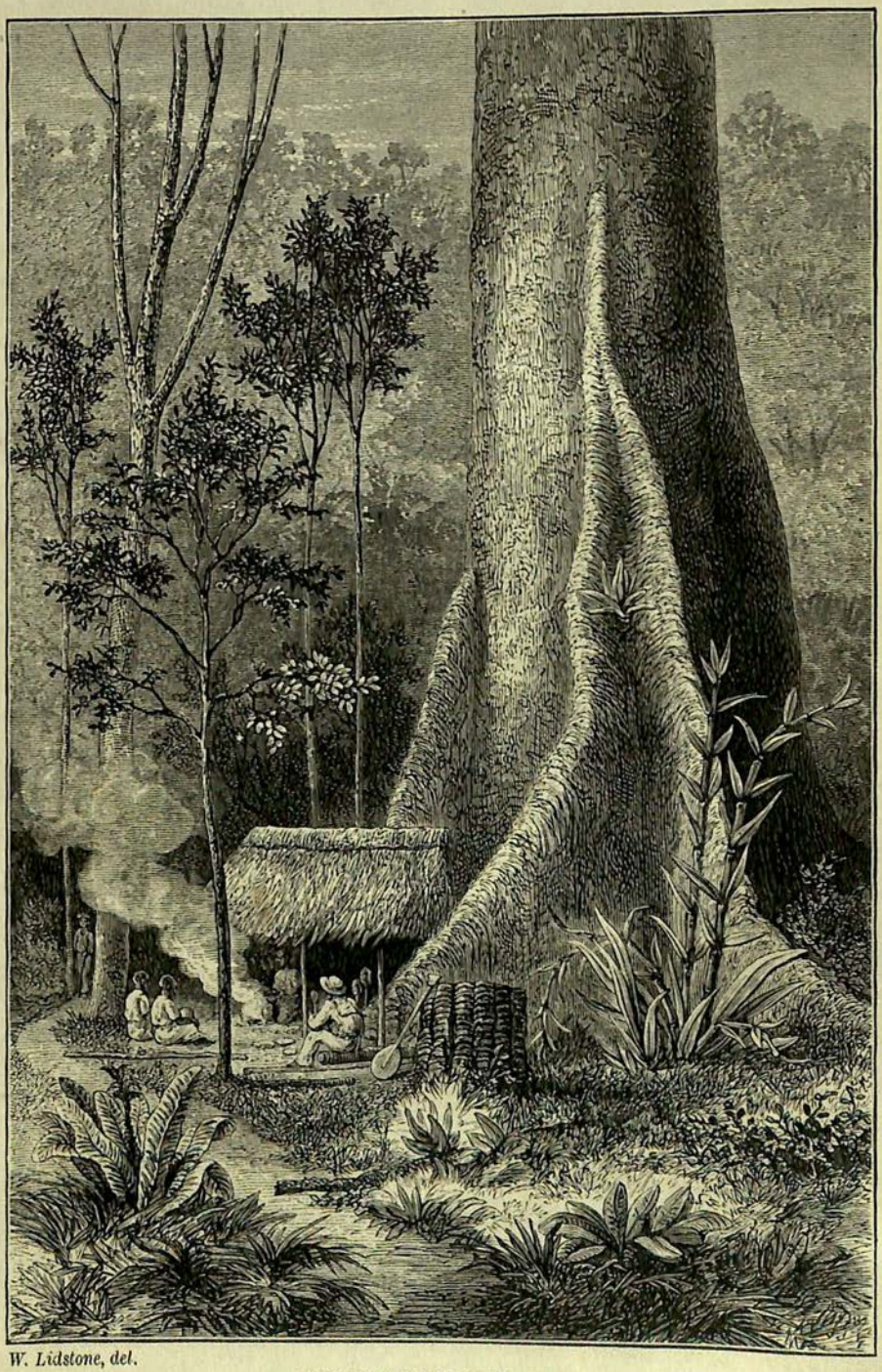
Notwithstanding his wretched appearance and surroundings, Mr. Piper was able to speak proudly of the immense territory he possessed in Bolivia, covering 100,000 square miles, and occupying the whole of that country north of the twelfth parallel of latitude. He took a pencil and marked out its boundaries on a map. It is to be his for life in any case, and if he succeeds in colonizing it, it will be confirmed to his heirs and descendants. One could not but be struck with the energy of the man who, after repeated failures, and now in ill-health, still spoke of his enterprise as feasible, and was devising schemes for its prosecution. There had been, it seems, some foundation for the report representing him as killed, for a negro in his employ had administered poison to himself and his engineer, of such potency that they both lay at the point of death for three months. This attempt on their life had been committed, Mr. Piper said, at the

instigation of a man, well known on the Purus, who was jealous of his reputation as an explorer, and wished to keep the monopoly of the india-rubber trade on the upper portion in his own hands.

We altered the hour for dining that Mr. Piper might join us at that meal, and then, as he told us he was entirely without provisions, presented him with a turtle, a bag of biscuits, and a bottle of brandy, with which he returned to his launch. Some months later we had the satisfaction of meeting him in Pará, looking much better.

The forest of the Purus, though interesting, is not strikingly different from what we saw elsewhere. Here, as on many rivers, the Samaüma, or West Indian silk-cotton tree, is by far the grandest object, towering above all the others; its vast dome-shaped top forming quite a hillock of foliage above the general level. The appearance of its immense buttressed stem may be gathered from the accompanying cut, which represents a trunk against which a hut for smoking the india-rubber had been built. Sometimes when a trovoado passes up river, it blows off the white silky down from which the tree derives its name, and produces all the effect of a snow shower at a little distance.

The variety of ferns in a tropical forest is very great; but, inasmuch as they seldom grow together in any considerable quantities, and many of the species are very diminutive, they make a less effective display than might be anticipated—far inferior, in fact, to that which may be seen in any Devonshire wood. Next to the tree ferns, those which have the peculiarity of



*W. Lidstone, del.*

STEM OF A SILK-COTTON TREE.

climbing up trees and shrubs will, undoubtedly, strike an Englishman most.

Birds were plentiful on the banks of the river, and we often had a shot at mutums or curassows. These are not infrequently kept at English farms, and reckoned as good as turkeys, which they strongly resemble. Cranes and stinking-pheasants were, of course, numerous. The former frequently took alarm as the 'Guajará' approached, and flew on to the next sand bank, only to be driven forward again by the advance of the steamer. In this manner they often kept a little way ahead of us for hours, passing on from praia to praia, until they became aware, by some strange instinct, that the convolutions of the river had brought them back nearly to their former haunts; when, rising high into the air, they sailed over the intervening neck of forest, and thus regained by a short cut the point from whence they had started.

Owing to the lowness of the water at the time of our visit to the Purus, we were enabled to see the base of the recent deposit of variegated sands and clays which spreads over the Amazonian valley. This consists of a hard bluish unfossiliferous clay, upon which the above beds rest unconformably. At Berury barreiras, near the Purus mouth, where the water stood at a level of fifty-nine feet below its high-water mark of floods, were some good sections showing this unconformability. There we saw a layer of leaves lying in a hollow in the blue clay, beneath the upper beds. From one section of yellow sands we obtained specimens of fossilized tree stems. No underlying rocks were met with on this river.

The action of the current of the Purus, continually abrading the bank on the concave side of the river, tends to enlarge the sweeps until they approach each other from opposite sides, and the river rushes through the gap to cut itself off. There are places where the voyager has the choice of either going round the old bend in still water, or taking the short cut. These places are called "saccados." In course of time the river builds a dam across the deserted bed, which thus becomes an isolated lake; and the whole valley is full of such sheets of water, showing by their regular curves and uniform widths that they are deserted channels. The river performs a strange freak at the place passed by us on the sixth day of our journey up. Here the Purus divides, without apparent reason, into two equal streams, one of which turns abruptly westward, and the other eastward. They wander away until they are as much as eleven miles from each other, then suddenly return, and form a junction again at a point only one mile from where they separated. The enclosed strip of land is known as Guajarátuba Island.

It was on the Purus that the Commission took first to keeping pets to enliven the monotonous hours. We began by buying a little female monkey of the Prega kind, which was very tame, and soon took affectionately to us. The Captain then purchased a male of the same sort, but he was wild, and declined for many days to make friends, even going so far, on one occasion when he broke loose, as to jump overboard. At length he took a fancy to the Engineer, to whom, therefore, the Captain made him a present,

and, in return, the little fellow was named "Bismarck," after the giver's great countryman. This monkey would never make friends with any other person, but exhibited the utmost distress when the Engineer went out of the ship. The Captain who was greatly interested at the time in 'Nicholas Nickleby,' insisted upon having the other called "Miss Squeers." The crew soon followed the lead of the Commission, and in a short time our ship was a perfect menagerie.

# CHAPTER XX.

## ON THE JURUA AND SOLIMÕES.

Valley of the Solimões — Coary — The Village School — Teffé — The Judge — Blown-up Launch — Drunken Fireman — Singular Palms — Enter the Jurua — Juruapuca — Piums and their Enemies — Orinooco Geese — A Coloured Englishman — Dirt-eating Children — Rubber Season — Reach Urubu Caxoeira — Commence Descent of Jurua — Savage Indians — Re-enter Solimões — Fonte Bôa — Learn of sad Death of Dr. Lee — Ipadu Chewers — Tonantins — S. Paulo — Hospitality of Officers at Tabatinga — Geology of the Solimões.

STEAMING up the Solimões, on our way to the Jurua, after our journey on the winding Purus, was a great relief to us, affording, as it did, a pleasant change of scene. Here the eye was treated to long vistas of ocean-like river, where to the westward sky and water met at the horizon, giving some idea of the vastness of the Great River. Here a tree-clothed island of great extent met the view; there was visible a long praia of sand, covering a space of hundreds of acres, left bare by the subsidence of the river, which had fallen some thirty feet since last we floated upon it. At intervals, and very rare ones, a *moradore's* house was seen on the banks, shadowed by the great wall of forest trees whose whitish stems had a bleached and wintry look. In places along the bank, masses of the clayey alluvium of which it is composed, becoming undermined by the sweeping current, have subsided into the river

with their freight of trees, which, dying in an upright position, have studded the water in that part with their tall gaunt skeletons, and added to the forlorn devastated look of the forest's edge. An absence of human forms, vast unreclaimed tracts of land, wastes of muddy waters, and islands and praias, are the chief characteristics of this portion of the Solimões.

The waters sparkled under a bright cloudless sky and fresh easterly breeze, while we ran along as close to the bank as sunken tree stems would admit. The wind being fair, the sparks from the 'Guajará's' funnel blew forward, many dropping upon our upper deck awning which they riddled with holes, and, falling through, made the place beneath almost untenable. Despite the annoying sparks, the wild scenes around looked pleasant enough under the enlivening effects of the bright sunshine; but when viewed, as was afterwards the case for days together, beneath a murky sky and steady drizzling rain, they took on a most bleak and dreary aspect, quite depressing in its effects on one's spirits. Then, with wind howling and rain beating up it; dark-looking floating logs stealing down on its current; the weather-beaten dead trees on its banks, and never a house to grace its low shores, the Solimões wore its worst and wintry garb.

In order to give the reader some idea of the nature of the country through which the Solimões runs, we here broadly state that it flows through a vast tract of alluvium, deposited by itself, in a valley cut out of an older, but, geologically speaking, recent deposit, which, rising to a height of one hundred feet or so above the alluvium, stretches away as a level wooded plain both

northward and southward, the limits of which have never been determined. The width of the alluvial tract varies, but is generally of great extent, and has likewise never been determined, except, of course, in settled parts, or where the older deposit bordering it closes in on both sides, as at Coary. When such is the case, or the river is flowing on one or the other edge of its alluvial plain, the older deposit is disclosed, forming high cliffs of red, white, and grey clays and sands, called Barreirases. All the branches of the Amazon flow in similar plains bounded by the same low table-land, which, closing gradually in the farther you ascend, at last are seen on both hands at one and the same time. The surface of the alluvium on the Purus, Jurua, and Solimões, is below the level of the high water of floods, so that for some months of each year it is submerged, and thus rendered uninhabitable.

On the day following the one upon which we re-entered the Solimões, we passed a neat-looking little village called Codajaz, situated on a strip of land slightly raised above flood mark; and on the succeeding one entered the mouth of the Coary river, where we anchored off the town of that name. This river is narrow at its entrance, but expands into a large bay a short way up, upon the eastern side of which, on high ground sloping gradually down to a fine beach, is the town of Coary, a scattered place containing some six hundred inhabitants.

The Chief having made the acquaintance of Senhor Valente—Captain of the Guarda Nacional of this district—during his voyage from Manaos to Pará, we

now paid that gentleman a visit whilst our steamer was wooding. Senhor Valente received us cordially, did the honours, and showed us over the place.

With him we went to the house of a shopkeeper, a tall, strongly built man, where we saw for the first time some Miranha Indians, among whom were three stout girls sitting on the floor near the lady of the house, sewing.

These Miranhas came originally from villages above the cataracts of the Japura—an immense tributary on the north side of the Amazon, having its sources in the mountains of New Grenada. They were not good looking, having low foreheads and a cast of countenance of rather an inferior type. They were not tattooed, but had small holes bored quite through the sides of their noses.

As we sat conversing with Senhor Valente, we looked from his open doorway across a little ravine, upon the opposite side of which was the school-house, an old thatched dwelling in a most dilapidated condition. Its clay walls having tumbled away from its upright posts on all sides, the whole internal economy of the establishment was exposed to our view. The boys looked more like wild animals in a cage than the frequenters of a quiet village school. At the time, the scholars were engaged in shouting their lessons all together at the top of their shrill voices, and raised a din which resounded through the whole place, but above which the commands of the master could be distinguished at times.

The larger portion of the inhabitants of the town, like those of all other Solimões towns, are essentially

fishermen, making their living by catching pirarucu, and likewise gathering turtles' eggs on the praias of the Solimões during the laying season of those reptiles, from which they manufacture an oil called the *oleo de Tartaruga*. At the time of our visit, as the praias were bare and the river falling, many of the people were away engaged in those occupations, but a goodly number remained, whom we saw fishing at the mouths of two little bays near the entrance of the river.

As we left the bay-like expanse of black water off the town, we were much struck by its resemblance to a tidal bay, some recently exposed sand flats suggesting that idea. Soon we passed through the straits, where for a short distance the banks on both sides of the river rise up in high red cliffs of the older deposit. Above this they recede, and no high land is seen again on both sides at one time.

Two days' steaming against the strong current, along an almost deserted portion of the river, relieved in some parts by long stretches of Barreiras—whose red cliffs contrasted with the green of the forest, and lent some colouring to the view—brought us to Teffé. This village, which is called the *Cidade* de Teffé, is prettily situated upon the black-water river of the same name, not far up from its junction with the Solimões; and like the town of Coary, is placed on elevated ground where that river widens out and becomes lake-like. It is exceedingly difficult to understand why these small rivers, having such diminutive exits—showing that the body of water they contain is not large—should a mile or two up from their mouths assume such gigantic dimensions.

The "City", fronted by a wide white sand beach, and with its houses mixed up with vegetation, amongst which are some fine cocoa-nut palms, looks well enough from the water—quite inviting, in fact; but when once you enter its streets, all its charms are destroyed by the air of neglect and decay, which hangs about the place like a deadly miasma.

It was a beautiful Sunday evening when we dropped anchor off the place; and one would have thought the arrival of a steamer in the port was not such an every-day event as to be regarded with indifference. But such was the case, no one seeming to take any interest in our coming, save a knot of four or five people who stood at a street corner. We landed at dusk, and walking up to the group, inquired of a grey-headed individual the way to the house of the Judge of the district, to whom we had a letter. The old gent, who answered our questions in a peculiarly weak and raspy voice, kindly showed us the way himself. Crossing an open square, all grass-grown and deserted, we arrived at a row of better built houses, and were shown into one of them as being "the house of the Judge." Presently we were introduced to the Judge himself, a little, old, half negro-looking man, having the lid of one eye held open by a strip of sticking-plaster between it and the eyebrow. This naturally gave that eye a glassy stare, as it could never be winked. He complained of being ill, and was evidently rheumatic, for when he tried to walk he brought himself up with a hitch, as if his legs had suddenly kinked. Upon reading the letter of introduction he at once placed himself, house and belongings

at our service, in the usual set phrases and in true Amazonian style—high-sounding offers, as empty as a drum, and light as air.

Then he proceeded to inform us that he was in great trouble, owing to the strange conduct of a prisoner, who upon his term of imprisonment being curtailed, had flatly refused to leave the gaol. The Judge's great difficulty was in devising some legal measures to evict him, and thus get rid of the expense of his keep. We afterwards visited the prison, and there saw the culprit sitting on the doorstep, with a happy look on his face, enjoying the cool evening air.

Next morning, whilst our steamer was wooding—which wood, by-the-bye, was sold us by our friend the Judge—we strolled over the place, past an old decayed church and tumbling houses; then out to some extensive cleared slopes at the back, where the drought and sun had withered up the grass. Upon the recollections of what this short grass had been before it withered, and in anticipation of the next year's crop, subsisted a herd of cadaverous cattle, to which Pharaoh's lean kine must have been mere child's play. When we say that the substance of their frames was just sufficient to cast a shadow, we have said all that is necessary about them.

Whilst crossing the meadow in a hollow that had been a little bay when the river was in flood, but was now fully thirty feet above the water level, we saw the remains of a large steam launch, which had been destroyed by the bursting of its boiler some five months previously. Of four men who were on board at the time of the accident, two had unfor-

tunately been killed, while two were miraculously saved. The main and after portions of the iron hull lie in one spot, and the bow part some fifty yards from it; while the steam chest is at least one hundred yards off in another direction, whither it was blown by the explosion. The boiler, which was lying in the main part of the wreck, is laid flat open, having given way all along the centre line of its upper portion.

We were much struck with a neat device upon the door of a small chapel in the cemetery, consisting of a death's head and cross bones painted in black, reminding us of the emblem that from childhood we had associated in our minds with the dreadful flag of Captain Kidd, and others of that piratical fraternity.

In returning through the town we followed another street, and thus passed a large gaudily-painted building with the Brazilian coat-of-arms over the door, which we found was the Camera Municipal. Just opposite was a shop kept by two young men, one of whom addressed us in English. In answer to our inquiries they said that they were natives of Tangiers, and that the old man with the raspy voice came from Gibraltar.

On steaming out from the mouth of the Teffé river, we were shown a channel leading into the Amazon, whereby a mile or so of journey is saved to steamers taking it in the rainy season. At its mouth is a small sand bank, upon which a year or two before our visit, a screw steamer, called the 'Augusto,' had lain aground for nine months. She had kept too close to the point whilst turning into the channel, and had grounded when the river was falling rapidly. Her

stern hung over the round high sand-bank, and when the waters were at their lowest, boats on the way up the Teffé used to sail under her stern, which was then eighteen feet above water. She was got off all right when the river rose, and now plies upon the Amazon.

Not having been able to procure a sufficient quantity of wood at Teffé, we had to stop at a place some three and a half hours' journey on, where a Brazilian named João da Cunha lives. He has a fine large clearing with a good house and garden, placed upon high ground on the south bank of the Solimões, almost directly opposite the mouth of the Japura river. We learnt from him that he had ascended the Jurua farther than anyone else; farther, he said, even than the point attained by that enterprising and talented traveller, Mr. R. Chandless. He had there encountered tribes of wild but friendly Indians, who were unprovided with knives or axes, and who cut down small trees with instruments made of labba teeth fixed in wood. Senhor da Cunha's stout wife did the overseeing part of the work of the place, if we may judge from the manner in which she looked after the eighteen men, boys, and women passing the sticks of wood on board our steamer; and judging from the neat way in which everything was kept, we cannot be far wrong in our supposition. Sitting on the bank, she gave directions to her workpeople from beneath the shade of an extensive umbrella.

An unfortunate occurrence took place on our way up from Teffé. One of our firemen, the best one of course—a man who could get more steam up with bad

wood than the other fireman, who also worked hard, could do with that of medium quality—went almost raving mad with drink imbibed before leaving that town. He got hold of a knife, and with fearful yells ran a sort of *a muck*. The steward, who had some influence over him, induced him to take more cachaça in order to make him dead drunk and helpless, which it fortunately did; and the ship's crew were relieved of all anxiety when they saw him stretched out on the deck in stupefied slumber. On the following morning at João da Cunha's he was paid off, and sent ashore by the Captain, while a man then in da Cunha's employ was hired in his place. This man was a civilized Pamary Indian, named Macario, from the Purus, who like all members of that tribe had a discoloured skin from the *puru-purus* disease.

We had seen, on our way up from Coary, many praias inhabited for the season by a few fishermen and their families; but, on the day we left Senhor da Cunha's, in passing a large stretch of sand at Capaca island, we observed quite a temporary village of huts, where Teffé fishermen were sojourning. There a recently killed pirarucu had been hauled up on the beach, close to which sat three men, who were watching our steamer pass. Within ten yards of them were twenty-three alligators with their heads above water and their noses almost touching the sand, patiently waiting till the fish was cut up, when they would come in for their share of it, in the parts thrown away by the men. A few urubus, that had been hopping about, also waiting for tit-bits, had become impatient at the delay caused by the passing of

our steamer, and, emboldened by hunger, had commenced the onslaught on the carcase, by pecking at its eyes.

Upon all the high lands on the edge of the river, in this part, we observed for the first time those beautiful and singular palms called *Barrigudas* (Iriatea ventricosa) by the natives. The peculiar feature of these is in their stems, which are small near the base but increase in size at some few feet from the ground to almost twice their ordinary diameter, and tapering off upwards resume their original size.

After wooding at the mouth of Guara lake, we entered the Jurua on the morning of October 23rd, and found it to be a muddy-water river, resembling the Purus in every respect but that of size, being on a somewhat smaller scale. For instance, its width at its mouth is half a mile, narrowing soon to a quarter of a mile; while that of the Purus is between three-quarters and a half mile. It has the same low swampy adjoining lands, which are flooded to a depth of from five to ten feet in the rainy season. Also here and there similar red cliffs on either side—few and far between near its lower portion, but more and more numerous the higher up one ascends—and extensive praias at the convex sides of its bends. In fact, it is so similar in every respect to the Purus, that it would be a mere repetition of the description of that river were we to enter into details upon its physical features.

The chief peculiarity in the scenery of the banks of the lower portion of this river is to be found in the preponderance of palms over other forest trees, and in

the low open nature of the latter. Grass, low willows, wild canes, and cecropias, flourish on the newly formed portions of alluvium. Another peculiarity in this river is that it does not possess one tributary of any size in the 600 miles of its course which we explored. Those it has are nothing more than mere good-sized brooks.

On the morning of our sixth day upon the Jurua, during which time we had not met with a single human habitation, our wood became exhausted; and we were compelled to stop alongside of the bank, where from a number of dead trees our men cut some 300 sticks of wood, which enabled us to get on to a wooding station called Juruapuca. The only house which graces this place is built upon a sand bank at a sharp bend, where within the last six years the river has altered its course, by cutting through a neck of land, thereby taking a short cut and abandoning a long curve. Mr. Chandless, in his interesting report on this river in the Journal of the Geographical Society, mentions that in 1867 a small portion of water at this place was flowing across the neck. Since that time it has cut down the barrier, and built a sand bar in the upper end of its old curve, which almost fills it up, and which is clothed with grass and willows.

The owner of the Borracha, or india-rubber establishment, like all other sojourners on this river, resides here only during the dry season, and goes to his permanent dwelling on the banks of the Solimões upon the rising of the waters. This river is essentially an india-rubber growing one—even more so than the

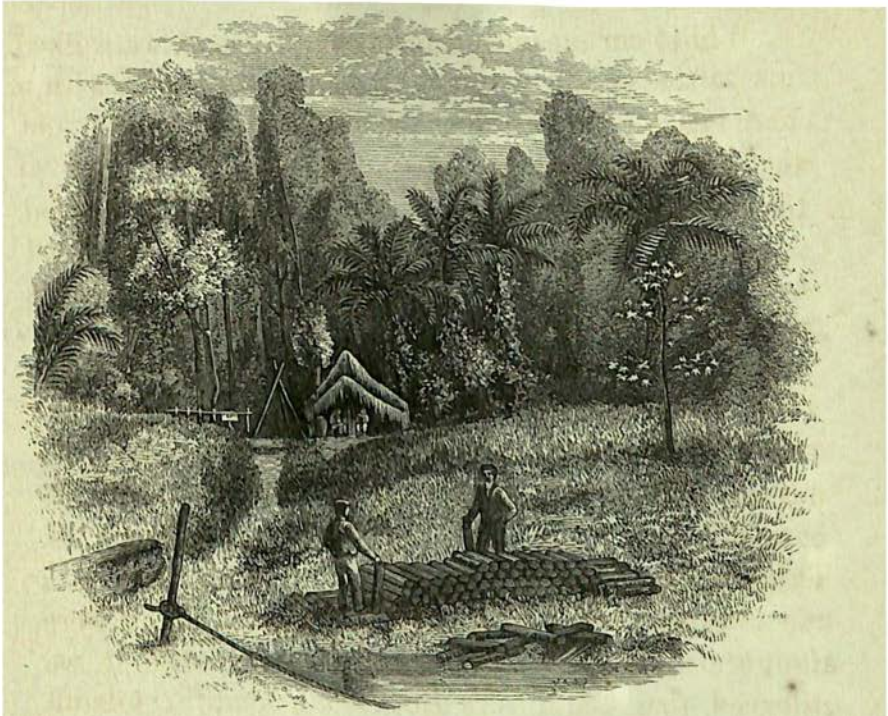
Purus—and, were it not for the attraction of the zeringa trees on its banks, would not have a single inhabitant.

Whilst our steamer was taking in wood, we walked up to the house, finding its windows covered with a fine gauze, and its door with curtains to keep out that dreadful pest the *pium*, which torments one so that life becomes really a grievous burden. Cursed as this river is with piums by day, it is blessed —"thrice blessed"—in having no mosquitoes at night.

On our way back across the sands, surrounded by black clouds of piums, which were so numerous that many lit upon our clothes in order to search for feeding grounds, we observed amongst them great numbers of small, wasp-like flies, which also lit upon us. Thinking that we had made the acquaintance of a new sort of pest, we stopped to see what they were after, and learn the worst; when to our delight we observed that they were busily engaged in seizing the piums, tucking them up between their legs, and carrying them off. Our pleasure at the discovery that our enemies had tormentors of their own was very great, and if the little wasp-like flies had been provided with hands, we felt as if we could have clasped them then and there. Catching one, we found it to be a small species of ichneumon fly; and then we knew that their object in capturing the piums, was, after stinging them into a comatose state, to store them up as food for their larvæ.

Above Juruapuca, houses were seen only at long intervals (of which the accompanying sketch of one

of them, called Mata-mata, gives a good idea of all), and the river wore a desolate look.



MATA-MATA.

Were it not for numbers of Orinooco geese—called Maricongos—frequenting the praias at every bend, and other birds, there would be but little in the form of life to look at. Nearly every praia had a flock of these geese, in the shape of broods in various stages of development, from small downy goslings of two weeks old, to young full-feathered birds. It was amusing to see the manner in which the full-grown birds scudded along from one end of the praia to another on our approach, before they eventually took to the water, and by diving or crossing the river

evaded our ship. The young ones also took to the water, and dived as the steamer approached them, scattering in every direction; while the parent birds flapped along the water in front of her bow, shamming a wounded condition in order to divert attention from their young. All these manœuvres ,were quite unnecessary, for as the flesh of the Maracongo is not esteemed as an article of diet, they are never molested. Sometimes a small flock of muscovy ducks would fly past within shot, and would be popped at by some one or other from the deck, but never did we know an instance in which one was killed. Ducklars, perched in old dead limbs over the water, were frequently made targets for our Captain's gun, but they invariably escaped slaughter: though from the manner in which they dropped into the water at the flash, one would think that they had been killed, until he saw them rise again at a distance, and swim away. Grey river gulls, and scissor-bills abounded in this region, and we also saw the species of powis (curassow) with sealing-wax coloured bill.

At one place, called Curemata, when we made fast for the night after wooding, the owner, a short, elderly Spaniard, and a middle-sized Brazilian with a large, brown beard, came on board, and dined with us. We do not mention that they partook of a meal with us, because it was a rarity for us to have guests—on the contrary, it was quite the opposite, for at every place at which we stopped there was always one or more to drop on board at meal times, in order to partake of our hospitality, to which they were very welcome. The gentleman with the brown beard, who proved to be a Major Estalano of Teffé, informed us that he was

the individual who brought Mr. Bates up in his small vessel from Manaos to that city; a journey which has been so delightfully described in that celebrated book of travels, 'The Naturalist on the Amazon.'

As we were making fast to the landing place of Uruçaca, our next wooding station, a light-coloured man who caught the bow hawser on shore for us, instead of calling out in Portuguese that it was tied, to our astonishment proclaimed that fact, together with an intimation to the crew to haul taught, with the English, but somewhat inelegant expression; "let it rip." He came on board, and on being questioned said he was a native of Gravesend, that he had come out in one of the Peruvian steamers some years ago, and, changing from place to place, at last came here to try his hand at collecting india-rubber. Senhor Thomaz, the owner of the Borracha, to whom he sells his rubber, pays him twenty milreis (2*l.*) for every thirty-two pounds of that article which he procures. He gets all his supplies of clothing, food, &c., from Senhor Thomaz, to whom he gives all the rubber he manufactures. The supplies are very expensive, every article being placed at the highest possible and therefore most unconscionable figure, so that in many places the poor rubber gatherer, when he thinks he has a large sum to draw, finds that he is really in debt to his supplier. This man and another young man, his partner, live together on the borders of a small lake near by, from which they start every morning at six, and making the rounds of two hundred rubber trees each, tapped on the previous day, collect the milk in a can. As they do so they make fresh openings in the tree stems, and place little tins to collect the milk for the fol-

lowing morning. Each thus, from one and a half gallon of milk, makes on an average sixteen pounds of rubber per day.

At Uruçaca there were three or four children with yellowish, bloodless countenances, protruding stomachs and colourless lips, who, we thought, were suffering from fever; but we were told that their appearance was owing to the habit they had contracted of eating clay, of which they could not be broken.

On the fourth day after leaving Uruçaca our wood was all finished, and in order to reach a wooding station, called Pupunha, just in sight, all the empty barrels, boxes and scraps of wood on board had to be burnt as fuel. Arriving there, we had a lot of trouble to induce the owner of the wood to part with any, as he was keeping it for the steamer 'Jamary,' then on its way up river. We at last induced him to let us have two thousand pieces. He was an old gentleman who looked as if his blood was in a very poor condition, while the piums had played sad ravages with his face and hands. By profession he was a civil engineer; and having, he said, spent his money in educating his two sons, was no longer able to live "in the highest society of" his "country." Therefore he had come to this out-of-the-way place, and built a good house upon the low barreiras of Pupunha, which he had been told was never submerged. On the first rainy season the water rose over the land, the whole bank gave way, and his edifice was precipitated into the river. Moving then to this place, he had only erected a temporary dwelling.

He complained of the unhealthiness of the spot, and

said that his workpeople collecting india-rubber back on the borders of the lakes, or ancient courses of the river, were all suffering from intermittent fever. Five years before this time, forty people had died of that disease at a lake close by. From him we also learnt that the inhabitants of the Jurua leave it in January, and return again in June; and that from February to May its alluvial banks are completely submerged, being thus rendered uninhabitable.

Not far on, above Pupunha, we passed the steamer terminus on this river—a place called Marary—consisting of one house built on posts, near the mouth of a lake. It is the last house on the Jurua's bank, and wears a gloomy, desolate look. Soon after we came to the "Urubu cachoeira" or Urubu rapids, where, owing to the lowness of the water, the river was shallow and ran swiftly. Its width from bank to bank in this part, a distance of 564 miles from its mouth, we found to be 425 yards, while the portion actually occupied by water was only 313 yards. Its banks were 43 feet above the water's level, and by marks on the tree stems growing thereon, we ascertained that they are submerged in times of flood to a depth of $3\frac{1}{2}$ feet; showing how vast must be the volume of water descending this river during the rainy season. The depth of water in the middle of the stream below the rapids was $5\frac{1}{2}$ fathoms.

Our upward journey terminating at this spot, we turned about after a time, and commenced our descent of the river. Assisted by the strong current, we steamed rapidly along in mid-stream, a pleasing contrast to our slow movement in ascending, whilst

crawling along close to either bank. When anchored that night off a praia near Lago Mari-mari, we saw the lights of a steamer which was slowly making its way up river. Coming to a stop just abreast of us, it lowered a boat, which crossed over to the 'Guajará,' bringing our friend Captain Bloem to pay us a visit. We were delighted to see him and have a chat, as well as learn the news stirring in the outer world. Our friend was on an official visit to the river in the steamer 'Jamary,' which was performing the monthly service from Manaos to Marary and back. After a short visit he returned to his ship, which, getting up anchor, went on again.

As the 'Jamary' on the way up had taken all the sticks of wood at the upper wooding stations, we could not procure any of that necessary article, and therefore had to stop for a day at a deserted place called Pupunhazinha, while our men cut enough to take us on to Uruçaca. This wood-cutting process was a most tedious affair, and submitted us to the persistent attacks of heartless piums, whilst our steamer lay alongside the river's bank.

This was not the only occasion on which we had to cut wood for ourselves on this river, for at another place we spent half a day at the same occupation. Not having got the wood on board by the evening we remained at the spot all night, in order to finish the work in the morning. We then crossed the river to a praia on its opposite side—a low moist stretch of sand—and whilst sitting down heard a curious sound, resembling the pattering of little feet, for which it seemed difficult to account. Taking the boat's lamp

we held it over the spot, and to our astonishment beheld a perfect stream of little turtles, each not two inches in length, bursting up through the compact sand, struggling out through it, and toddling off at a good pace to the river, into which they ran. They were the products of a turtle nest which had hatched out, and was now pouring forth its contents into the world. The spot from which they emerged had a few moments before looked smooth and firm, not hinting in the least at the existence of any kind of life beneath. Our cabin boy caught most of them, about one hundred in number, and put them into a large pudding pan used as a bailer to the boat, where he had great difficulty in keeping them till he got on board, as all were scrambling about one upon the other, and continually getting over the pan's edge. The sailors were very fond of young turtles, roasting them whole, and then eating them; but as we did not fancy their infantile appearance we never even tasted them.

At Gavião Barreiras, where we subsequently stopped for fuel, Senhor Sousa, its owner, related to us some anecdotes of savage Indians who from time to time make their appearance on the praias, or barreirases, of the river, coming from the interior of the country. He said that whenever they meet with people they fall upon and slay them. A trader with his men, in going up the river, had camped one night on a praia, where they were attacked by a party of native savages, having large ears, belonging to some unknown tribe. The trader, wounded in many places by arrows, sought refuge beneath the toldo of his boat, while one of his slaves, getting alongside of it in the water, managed

to drag it off, and thus they were able to escape. For this act of bravery the slave was granted his freedom.

Senhor Sousa assured us that the semi-civilized Catauixis Indians, inhabiting the borders of the Jurua in this part, are a treacherous lot, and are not to be trusted. He stated that a young Portuguese who had gone up to one of their villages, situated on the borders of a small stream not far off, and hired three of the members of that tribe to come and gather rubber for him, had, on the way back, been brutally murdered by them.

Thus dwelling as it were in the "midst of alarms" Senhor Sousa, who was the only person that remained on the Jurua all the year round, had not a very pleasant time of it, living as he did in constant dread of an attack at any moment from wily savages.

On the morning of November the 15th, we arrived at the mouth of the Jurua, and re-entering the Solimões turned up it, keeping along its southern shore until we arrived in the forenoon at the Barreiras of Araras. This place, a wooding station, is the residence of a Portuguese trader, one Senhor S——. He has a long, narrow, little steamer, and a house upon the high ground of somewhat similar proportions, being likewise long and narrow. The steamer was laden with firewood, which was passed on board the 'Guajará' by a gang of young women employed by Senhor S——.

Our next stopping place was at the Barreiras Vermelna de Fonte Bôa, where a merchant named Rebello has erected a substantial dwelling-house and shop.

The principal room in the former had its walls decorated with curious stiff paintings, by some native artist, intended. to represent trees, men, and four-footed animals. These were painted in a variety of colours on the whitewashed plaster, and occupied only the lower portion of the walls to a height of about three feet. Senhôr Rebello was very generous, presenting us with a piece of fresh beef, a sucking pig, and some oranges.

We made an abortive effort to continue our journey, but our wood was so bad that it would not get up steam. A day had therefore to be spent at the above-mentioñed place, while our men and some natives were cutting dry wood to mix with our green stuff. While this work was in progress, we took the opportunity of visiting the town of Fonte Bôa, which is situated on the east bank of a small river called the Caiarara, some few miles on. On arriving there in our montaria, we landed, and were somewhat surprised to meet our friend Senhor Valente, of Coary, who was there on business.

The town, chiefly consisting of two long rows of houses and a church, was at the time almost deserted, by its inhabitants being away, either up the Jurua, rubber collecting, or on praias fishing.

Glancing over a late Manaos paper of Senhor Valente's, we were shocked to read of the death of Dr. Lee, a gentleman whose acquaintance we had made at Manaos, and who had gone up the Purus a month before us to establish a Mission under the auspices of the South American Missionary Society. In this paper but a slight mention of the sad affair

was made, but we subsequently perused a full account written by Mr. Resyek, Dr. Lee's assistant, which appeared in the Report of the above Society for the year 1874. It would appear that after the Missionaries had been a short time on the Purus, at a distance of over 1000 miles from its mouth, they met with so many difficulties and disappointments in trying to carry out their task, that they decided to return to Manaos. They took passage in a little trading launch, and had accomplished but a small portion of their journey, when a stoppage was made one night at a place called Saccado. It was usual for all the passengers, some eight or ten in number, to go on shore at night to sleep, as the space in the boat was so confined by being crowded with deck cargo; but, strange to say, on this occasion Dr. Lee unfortunately elected to sleep in a hammock slung under the awning, or toldo, of the launch. The fireman, a negro, also slept in her, beneath the toldo, while two boys slept on its top. During the night, as she lay in the eddy in deep water, at a distance of only six feet from the shore, she suddenly sank, carrying down with her both Dr. Lee and the negro. The boys who were sleeping on the toldo escaped to the shore, giving the alarm at once, but too late, unfortunately, to permit any attempt being made to rescue the unfortunate men, who had been dragged beneath the waters. Mr. Resyek and the others, at once ran to the river side, only to see in the dim light the turbid river flowing silently over the spot where the ill-fated craft had foundered. On the following day the launch was hoisted to the surface by ropes, from a staging

built out to her; when it was discovered that through a cock, which had been left open, the water had flowed steadily in, and thus caused her to sink.

In the same paper we saw a paragraph stating that the Jaupiri Indians on the Negro had again attacked Pedreira, and were giving the Provincial Government some trouble.

The old town of Fonte Bôa, like that of Juruty, no longer exists in the eye of the law, for Senhor Rebello has got the Government of the province of Amazonas to proclaim his place as the *real* Fonte Bôa, and take all ancient rights away from the settlement we had just visited, granting them to the new locality. In a short time most of the people of the old town will move down to the new one, which is more conveniently situated, and less infested with insect pests.

Three days' slow steaming, produced by very bad wood as fuel, along a bleak portion of the Solimões, where hardly a house was to be seen on its banks, or fisherman on its praias, and with abominably dull rainy weather, brought us to the Barreiras of Jutahy, where some delay was experienced in cutting wood at the mouth of the Sappo. Whilst this was being done we landed at the house of the chief man of the district, a Senhor Moreira, who had a large plantation behind his house, and a lot of Cataukin Indians working for him. These Indians belong to a tribe frequenting the lower part of the Jutahy river, and are a clean-looking, light-coloured lot, with holes drilled through their upper lips. Besides these he had three Miranhas, whose cheeks were puffed out in a most remarkable manner. At first we thought this

was owing to the natural shape of their faces, but soon perceived that their mouths were full of that curious vegetable product, called *ipadu*, or *caco*, which they were sucking. This substance has been used, it is said with success, for warding off fatigue, by a great pedestrian quite recently in England.

One and a half day's steaming, with good fuel, brought us to the mouth of the Tonantins river, a narrow black-water stream on the north bank of the Solimões, into which we turned, and soon arrived at the town of the same name. The day happened to be fine, and under the influence of the sunshine, the small, scattered town looked clean and bright. Each house is provided with a picket enclosure behind it, containing fruit trees and a pond with turtles. Though the town boasts of 500 inhabitants, yet we only saw three men, viz. a Portuguese; a Dane, who came from New Grenada; and an unfortunate old white man, of unknown nationality, who was suffering from some horrible skin disease. Besides these, there were a few women and children. Most of the people were away on praias catching turtle, and we were told that one large praia had no less than eighty people encamped upon it.

On the top of the cliff near the town, in black soil, are quantities of Indian pottery, amongst which we found several pieces painted with very delicate and intricate markings, some arranged like scales on a fish, while others were of the Grecian pattern.

A small Government launch, carrying a bow pivot-gun, came to Tonantins from the river Içá during our short stay, and, after embarking the carriage of a field-

piece, started on her return to that river. We had some conversation with the officer in charge of her, who informed us that the Government had lately made a military station some three days' journey up the Iça, and were now fortifying it.

The next town we passed was S. Antonio, near the mouth of the above-named river, at which not a human being was to be seen. From the time of our leaving Tonantins, until we got to the end of our journey up the Solimões, we had generally beautiful weather, and, save a thunderstorm or two, had sunshine by day and moon-shine by night, when the river wore its pleasantest garb.

We frequently, during our journey, took advantage of small parana-mirims, between islands and either main, which are very numerous in this part. When on them, one could almost suppose himself to be upon an independent river; but when out on the open Solimões, where there is no parallelism of banks, but only great wide irregular stretches of water, one would hardly think that he was upon a river at all. Some idea may be conveyed of the immense size of the Amazon by the statement that above S. Paulo, at a distance of over 1900 miles from the ocean, from the deck of our steamer we saw, at one time, a wide water horizon before and behind us.

The town of S. Paulo, our next stopping place, is the exact counterpart of all other towns on the banks of the Solimões; having a few good, though small, white-washed houses, and a greater number of mud-walled huts and grass-grown streets, all conveying to the mind the idea that it has seen better days. An air of

utter neglect and almost total abandonment pervades the place. But there is no actual reason to suppose that it ever was more flourishing than at present, for it is the temporary nature of the houses, and mode of life of the inhabitants, that give it the appearance of being out at elbows; for such is the nature of the construction of its edifices, that in two or three years after one is built, decay commences, its sides crumble off, its thatch becomes attenuated and rotten, and a new one has to be built near by to replace it. Then again, the inhabitants who amount in number to between four and five hundred, are generally away, mostly fishing, or living at small sitios and plantations on land that will be flooded during the rainy season; at which time they return to their town dwellings.

S. Paulo is prettily situated on a small plateau, much cut up by ravines, upon the southern bank of the Amazon; where, from its elevated position, it commands a fine view of river scenery. From it the high land has a long slope to the water's edge covered with grass, with little hollows here and there in which small shrubs and trees nestle. The white arenaceous clay showing through the grass here and there, gives this some resemblance to the slopes of a chalk down; while the shrubs, in their general similarity to gorse, help still further to carry out the illusion.

The chief man of the town is a dark mulatto merchant, from whom we purchased the wood we required. Although probably rich in worldly goods, and with a number of workmen at his command, he was dressed as if he were in poor circumstances, actually going barefooted.

After leaving S. Paulo we passed a place called Rita Barreiras, where we encountered an exceedingly strong current, which gave the 'Guajará' as much work as she could do to stem it. As a rule in strong currents she did not behave well, for as the swirl of them caught her on either side of the bow, she heeled over at a considerable and most uncomfortable angle. She was most difficult to steer, and it was curious to see the manner in which the steersman had then to whirl the wheel round, first in one direction, then in the other.

In two and a half days' steaming from S. Paulo we reached the village and fort of Tabatinga, situated at the boundary line between the great Empire of Brazil and Republic of Peru, at a distance of 2070 miles from the Atlantic Ocean. Some few miles below it the Solimões has a sharp bend, above some remarkably large islands near the mouth of the Javary river; and flows past the fort in a northerly direction, with a width of three-quarters of a mile. At the bend just mentioned it loses its name of Solimões, and takes that of Maranhão; just as above the mouth of the Rio Negro the Amazon takes the name of Solimões. Give it what name you please, it still remains one and the same river—the mighty Amazon.

Dropping anchor off the place near a small gunboat and a batalõe—which, with some montarias, represented the shipping of the port—and under the muzzles of a row of field-pieces behind a low earthwork, we terminated our ascent of the Amazon. A flight of steps led up from the landing to the level of the fort, some thirty feet above high-water mark of floods, near

the head of which a sentry was posted. We ascended to the top and took a stroll through the place, which is mostly composed of barracks for some eighty soldiers who are stationed there. The town is divided by a gully into two portions—civil and military. The civil portion consists of only eight or ten houses, of which three are shops, and one a school; all in a neglected state and partially overgrown with weeds and shrubs. The military portion consists of an earthwork along the river's bank, a range of barracks and officers' quarters, together with a fine range of new brick barracks in course of construction.

In passing the officers' quarters we were invited in, and very kindly treated. After coffee and some desultory conversation, they took us to see their brick and tile manufactory and carpenter's shop, where their soldiers work in getting out materials for the completion of the new barracks. One of the three who accompanied us—an engineer officer—accepted our invitation to come on board, and we spent a pleasant evening chatting together.

Not being able to get wood for our steamer, the Commandante, next morning, sent nine of his soldiers to cut that necessary article for us, and gave us all he had, some 700 pieces in number belonging to the gun-boat, for which he would not take any other payment but thanks. He kindly invited us to dine with him that evening, but as we were bound for the Javary river we could not spare time to stop and avail ourselves of his proffered hospitality.

In looking up the Maranhão, a barreiras is seen some three or four miles off, upon which is the

Peruvian frontier fort of Leticias, at which is stationed only one officer of the army of Peru. We met this gentleman at Tabatinga, whither he had come for companionship and change, his own quarters being so dull and lonely.

After partaking of a bread, cheese, and beer lunch with the Commandante, we bid adieu to our kind friends; and after running a short way down river, took in the soldiers' wood.

We saw no beds of sandstone or limestone on the banks of the Solimões. A little below S. Paulo there is a section of dark clay which greatly resembles the Tertiary deposit of the Javary. It contains a layer of impure lignite and calcareous nodules, but has no signs of fossil shells.

The fossiliferous Tertiary deposit is, however, seen on the south bank of the Solimões at Major Rebeiros, not far from the mouth of the Javary.

In most sections of the variegated sands and clays, on the upper part of the Solimões, a bluish clay weathering of a brownish green hue underlies them unconformably. It may perhaps belong to the upper portion of the Tertiary beds.

The composition of the banks of the Jurua is so similar in every way to those of the Purus, that it is unnecessary to touch upon them in this chapter.

## CHAPTER XXI.

### ON THE JAVARY.

Start for the Javary — Death of "Miss Squeers" — Character of the River — Purchase a Barrigudo — Canamá — The ultimate Point of our Journeys — The *Lingoa Geral* — A Tiny Marmozet — A Love Story — Piririca — Geology — Down the Solimões — Caldeirão — An Unlucky Day — Looking for the Chief's Slipper! — News at Teffé — Lake Cayambe — A Laughable Contretemps — Arrival at Manaos.

SELDOM had we been more pleased on leaving any place than we were on getting finally free from Tabatinga and its neighbourhood, where the intense heat and numerous piums, as we lay under the sheltered bank taking wood on board, had combined to make our situation well-nigh intolerable. Only an hour remained to sunset when the last log had been passed into the 'Guajará'; but we felt that, far as the day had advanced, we must make a start, if we only reached across to the mouth of the Javary—the river we were now about to explore. As a matter of fact, we got no farther, but anchored off a sand bank, at the point of an island; judging it to be a suitable place from which to get observations for fixing accurately the position of the confluence of this tributary. In some respects this proved a less easy matter than we had anticipated, for the bank had, as it turned out, a wide margin of soft mud round it, and through this we were obliged to wade to reach the firmer nucleus. The mosquitoes at once attacked our bare feet savagely,

and it was necessary for us to bury them in the sand all the time we were at work; but we succeeded in recording the altitude of some of the stars, and arrived at the result that we were almost exactly 70 degrees west from Greenwich, and rather more than 4 degrees south of the Equator.

During that night, November 30th, our poor little monkey, "Miss Squeers," departed this life. She had been slowly wasting away, for no apparent reason, ever since she came on board, and was now reduced to a mere shadow. For several days she had passed most of her time lying quietly in a patch of sunshine in one of the cabins; but if either of us went near her, she would get up at once and patter after us, crying piteously to be taken on our knees, nursed, and petted —a plea for sympathy which we could seldom altogether resist. It would seem that she had felt unequal to the strain of entering upon a new month and a new river, but weary and worn had laid the burden of life down, without a struggle, on the threshold.

Very unfavourable accounts had often been given us of the Javary—accounts which had made us somewhat dread the time when we should enter upon its exploration. Hordes of cannibals, we were told, infested its banks, dismal swamps spread themselves out on either hand, and fever would certainly attack anyone who remained on it long. One pictured it uninhabited, sunless and desolate—a kind of "Valley of the shadow of death"; it had been therefore a great relief to us to find that our instructions did not require us to ascend it for any considerable distance. Great was our surprise to discover that this bad

character was wholly undeserved, and that it was in many respects a far pleasanter stream than either the Jurua or Purus. Though smaller than those rivers, it resembled them in being muddy and winding, as well as in most of its general characteristics; but what gave it greater favour in our eyes was that it flowed through a narrower and deeper valley, and more frequently touched the side of it, so that we oftener had a view of elevated land. A still more commendable feature of the Javary is that the houses upon its banks are of a less temporary nature than those which we had been accustomed to see upon the other rivers, having large plantations and numerous fruit trees surrounding them, while several of them have the look of being long-established dwelling places. A third fact lent interest to this tributary, namely, that it is a border river, separating two important countries. Doubtless we were influenced largely by imagination, but the Javary seemed certainly to wear a different aspect when we regarded it in this light, and said to ourselves as we steamed up it, "Here to our left is Brazil—a great empire with some of whose provinces we have grown familiar; and there on our right is Peru—a new and, to us, unknown land."

The Javary has three mouths, at no great distance apart, of which the eastern is the most important, and it was necessary for us to pass the other two in order to reach it. All day we steamed steadily up river, except that we made one halt for a few minutes at a large house to ask the owner if he would be good enough to get some wood cut for us by the time we returned. It was necessary to take precautions of

this sort to secure a supply of fuel on the Javary, for no steamers run regularly upon it, and no stock of prepared wood is therefore to be met with. This place was called Piririca (razor-grass)—an unpleasantly suggestive name—but whatever quantities of that dangerous forest creeper may have once flourished upon the spot, they had been cleared off to make room for extensive plantations of maize, tobacco, and mandioca.

A number of pets were kept at Piririca, and our Captain at once set his affections upon a large barrigudo monkey, which after some bargaining was handed over to him, and conveyed on board, to be added to the 'Guajará's' fast increasing menagerie. We, on the other hand, desired to get possession of a very tiny marmozet, no bigger than a mouse, with which the Major—for by this title the owner was known—seemed less willing to part; but he eventually agreed to sell it on the somewhat strange condition that we should leave it with him until we returned to get the wood. The barrigudo could not be called a handsome animal, the large stomach from which the species takes its name giving him an ungainly appearance, and his coat seeming to be too thick and warm for these tropical regions. He was of a dark grey colour, approaching black, and had a countenance wearing an expression of stupid good-humour, which very fairly represented his character. Displaying no special affection for anyone in particular, he nevertheless was willing, and even anxious, to be on the best of terms with everybody. At times he would come hopping along the deck, and observe one of us resting on an easy chair, when instantly he would clamber up,

and seat himself upon our knees, quite regardless of the fact that his bulk and weight made him somewhat too much of a lap-ful. To dislodge him from thence was, however, no easy matter, for he held on by all his four hands, and, still more tightly, by his prehensile tail. During meals it often happened that one of the windows of the saloon would be suddenly darkened, and harsh discordant screams would strike upon our ear. These phenomena announced the arrival of the barrigudo upon the scene, and his desire to have a yam or potato, with which to stay the cravings of his appetite. He was holding on to the bars of the railing of the awning deck by means of his tail, and swinging to and fro through the open window, with all his hands free and ready to clutch whatever might be offered.

During the afternoon of this first day's voyage we passed the mouth of a very large tributary, called the Taquahy, beyond which the size of the Javary sensibly diminished. Always there was, on one side, the steep bank with its high surmounting wall of forest, wonderfully beautiful with its palms and creepers; and on the other side the gradual slope of the bush from alders through cecropias up to the higher trees; just as we had been accustomed to see these things, through several weeks, on the Purus and Jurua. In the same way, the different characteristics of the two shores kept changing sides with each other, as we swept round in reversed curves, now to the right, now to the left; and the only thing wanting to complete the general resemblance was the praia along the edge of the alders. There is not space in the Javary for

very extensive sand banks, and the rise of the river was already sufficient to cover up most of the narrow strips visible in the height of the dry season. The majority of the houses were upon the Peruvian bank.

On the third day our wood began to give out soon after noon, for we had not been able to obtain as large a supply as we wished at Tabatinga. Whilst passing a house, called S. Sebastian, standing on high ground in a remarkably abrupt bend, a discussion arose respecting the possibility of getting farther; and whilst the decision of the matter hung in the balance, the Captain shouted so many contradictory orders to the engineer and steersman that the 'Guajará' backed, shot forward, halted, and spun round and round, in a manner that must have been wholly inexplicable to the people who were watching us from the shore. After we had amused them some minutes with our strange gyrations, it was decided that we might get on somewhat farther before we absolutely reached the end of our fuel resources.

Before dusk we were compelled, perforce, to come to a stand at a place called Canamá, consisting of one or two small houses in a clearing on a high bank on the Peruvian side. We were now about 110 miles from the mouth of the Javary, and this was to be the ultimate point of our long wanderings. All the work laid down for us in our instructions was now accomplished, and we believed that when we left this place we should be homeward-bound. It seemed, in some respects a pity, now that we had got so far across this continent of South America, to turn back without catching a glimpse of the Andes; but our mission was

confined to Brazil, and it is necessary to advance many hundreds of miles into Peru—beyond Nauta on the main river—before the mighty mountain chain comes within sight. We had been by this time so long and so continuously cruising about, that perhaps the thought of home and rest loomed more pleasantly before us than the prospect of witnessing the marvels of the Andes could possibly have done, had that been the next thing on our programme.

The Javary itself, although so far westward on the S. American continent, does not flow from the mountain range, or touch any of its spurs; but, like the Purus and Jurua, has its course wholly in the plain. We were told that in the wet season it is possible to pass in a canoe from the head waters of the Jurua to those of the Javary; the intervening land being flat and swampy. Information of this sort is, however, rarely reliable; we have already referred to several cases in which channels, joining rivers together in a very unlikely way, appear on maps, but have no existence in fact.

A whole day was spent at Canamá in cutting wood, without which the 'Guajará' could not get away from the place. This pause, tiresome to most of us, was as usual highly prized by Mr. Trail, enabling him to pursue his botanical researches, which had already resulted in the discovery of more than thirty new species of palms. The Javary just below Canamá is rather less sudden than usual in its bends, consequently a vista along it is opened up from the top of the bank, and forms a pleasant river landscape. In the accompanying engraving, which represents this

*W. Lidstone, del.*

CANAMÁ.

view, the shore on the left-hand side is the Peruvian, and the other the Brazilian.

On Saturday morning, December 5th, we commenced our return journey, and soon reached S. Sebastian, whose inhabitants we had surprised and puzzled two days previously. They had now an opportunity of judging whether our singular movements resulted from insanity, as perhaps they had been tempted to believe, for we landed and paid them a visit. To communicate with them, however, it was necessary to employ, as interpreter, the sailor whom we had engaged temporarily from John da Cunha's, for they spoke the *lingoa geral*. This language seems to have been at one time the almost universal tongue in the Amazon valley, but is being slowly replaced by the Portuguese. It is very well known that it was invented and taught by the Jesuits, who, on attempting to found missions in these regions, were at first baffled by the great variety of Indian dialects. They also formed the reasonable theory that the desolating strife which had always existed between the several tribes and threatened their destruction, arose out of the fact that they necessarily misunderstood each other, because they could not interchange their ideas by means of speech. Half the quarrels that take place in the world, even among civilized peoples, arise, they alleged, from trifling misunderstandings. Never, perhaps, was there a bolder scheme formed than that of creating a new language out of various Indian tongues, and inducing all the scattered tribes to give up their peculiar speech in its favour. The success of their undertaking must ever be regarded as one of the most

marvellous instances of missionary zeal and perseverance, although the means adopted to attain their end were certainly not such as would be regarded with favour in the present day.

The Indians at S. Sebastian readily disposed of such possessions as we wished to secure for curiosities. The Botanist purchased of them a blow-tube and quiver of poisoned arrows—the gun and shot of the Amazon, so often described by travellers; as well as strings of hard seeds with rattling kernels, used to tie round their legs to make a noise when dancing. The Chief bought a marmozet, like the one waiting for us at Piririca, and almost as small. It had a little white patch, like whiskers, on each side of its mouth, but was otherwise of a dark colour, and had black parallel lines running down its back from the shoulders to the tail. Its head seemed wide and large, on account of the mane-like way in which the fur lengthened out at that part. Little "Quis-queo," for so the Chief named it, was tame and affectionate, liking nothing better than to be on his shoulder night and day.

Our wood ran short again during the afternoon, for the 'Guajará' could easily burn in nine hours as much as our men could cut in twelve. It was necessary to stop, as it chanced, at a place called S. Antonio Bôa Ventura, and here we were detained until noon on Monday. The owner of the place hoisted the Peruvian flag on a pole near his house, from which we understood that he acted as consul on this river. On Sunday evening we paid him a visit, and found him lying in his hammock twanging a guitar; but he rose at once, and received us with a warmth slightly suggestive of cachaça. Inquiring if we objected to a tune, he,

without waiting for an answer, proceeded to play a favourite air several times over, swaying his body to and fro to assist the performance. He then fell back into his hammock and thrummed away some "celebrated reverie" on one note. This may have been all very delightful to the gentleman himself, but was not very lively for us, and grew monotonous after a while; so we bade him good evening, and took our departure.

At this place there was an Indian girl, who was rather good looking, and seemed to know it; for she had arrayed herself in a spotless white dress and placed a flower in her hair, thereby setting off her charms to the best advantage. Several of our crew completely lost their hearts, and it was amusing to watch their jealous rivalry. Shortly before we started on Monday, one of the sailors came to the saloon where the Engineer was writing, and, trembling with excitement, entreated him to take the portrait of the "white girl," for by this name she was known, on account of her snowy attire. As she stood at the top of the bank, resting one elbow on the stump of a tree, and waving a handkerchief as a farewell salute, she was not an unpicturesque figure; and the Engineer hastened to dash off a rough but sufficiently recognizable sketch for the sailor who had been so smitten, and who most likely would never have any other memorial than this poor drawing of his ardent attachment. He received it very thankfully, drew out a handkerchief, and, after wrapping it carefully therein, placed the parcel in his bosom. Then pulling out some crumpled milreis notes he inquired how much there was to pay, and seemed surprised when he was

asked to accept it as a free gift. His rivals clustered round him, begging for a sight of the portrait, but he would not allow them to profane it by so much as a glance.

On arriving at Piririca the Major announced that our marmozet was dead, and in proof thereof produced the skin, which he had roughly stuffed. He professed great sorrow, and explained that in order to do his best to keep it alive for us he had given it in charge to a slave girl, with strict injunctions to tend it carefully. She was carrying it about on her head, when it unfortunately fell off, and died of the injuries sustained in the accident. He had caused a large quantity of wood to be cut for us, and as we were detained at the place one night for the purpose of taking it on board, he got up a dance for us, which proved to be a very tame affair.

That morning we had ascended the Taquahy for a distance of sixteen miles, and found that it wound about very much, though carefully avoiding the sides of its valley. Our exploration of the Javary was now complete. It possesses some very interesting sections of blue clay beds, containing immense numbers of brackish and fresh water shells in a good state of preservation, as well as layers of impure lignite and nodular masses of grey limestone. Similar beds had been previously found on the Maranhão, and their fossils have been pronounced by Mr. H. Woodward to be of Tertiary age. We examined sections on the sides of the Javary, where the red loam and white sands of the recent deposit rested upon these beds, but, unfortunately, owing to the fallen nature of the cliffs we could not see the actual junction.

Heavy thunderstorms, accompanied by much rain, had been frequent during our short trip on this river, announcing the approach of the wet season. Showery and gloomy weather also characterized our voyage down the Solimões to Manaos; nevertheless, it was a pleasant thing to glide swiftly, by the help of the current, down the broad reaches of the great river, meeting the trade wind full in our faces, and rejoicing in the immunity from pests secured to us by the breeze and rapid motion. This state of things was a great contrast to what we had endured on our way up, when we sometimes saw before us some projecting point only a few hundred yards ahead, and struggled for hours with the stream before we had succeeded in doubling it. Now islands appeared far away in the distance, lifted into the air by the mirage; in a few minutes they had dropped down and made a dent in the water line; and, very shortly, we were rapidly passing them by.

A marked feature of this river is the number of logs floating down on the tawny water, with rows of gulls upon them, all standing in an even line, and with their faces in the direction in which they are travelling. At times when the 'Guajará' was stopped, for some purpose or another, they came into sight far up river, passed us by, and were lost in the dim distance down river; but the gulls never seemed to move. It looked as if they were voyaging onward for some definite purpose, and one wondered whither they were bound. They must, of course, at the end of several hours find themselves far away from their former haunts;—do they ever return?

On the morning after leaving the Javary we

touched at the village of Caldeirão, on the north bank, standing new and neat on a high barreiras. A priest in some monkish costume stepped out of a house to receive us, and advised us to visit the sugar mill and distillery at the back of the place. As we were on our way thither along a broad cart-road through the forest, sloppy with recent rain, we met the young proprietor, who turned back to show us the place. It was new, and everything in excellent order, but not working. The cane seemed to flourish luxuriantly, and the young man told us that it was easy to grow any amount, but he complained much of the scarcity of labour, and the difficulty of getting his machinery repaired if any little part gave way. He accepted an invitation to breakfast with us on board the 'Guajará' with the invariable "pois não," but the priest declined.

We made some stay both at S. Paulo and Tonantins, and the morning of the sixth day of our voyage down the Solimões, found us at the mouth of the Sappo, taking in wood which had been ordered on our way up. This place and day proved most unlucky for us. At half-past eight we were, we thought ready to leave with all the wood on board, but as soon as we attempted to move, it was found that the 'Guajará' was hard aground. She had been floating in shallow water, but the extra weight of the fuel had sunk her somewhat in the water, and fixed her firmly on the bottom. A scene of confusion ensued: by ten o'clock, however, the Captain had succeeded in his efforts, and again we attempted to make a start; but scarcely had the order "full speed" been given, when we struck

violently upon the point of a submerged tree, and the cry was at once raised that the water was rushing into the forward hold. Before we could turn round and regain the beach there was ample time for the steamer to have sunk, had she not been built in water-tight compartments. As it was, there were seven or eight feet of water in the front hold, and the bow was much depressed before we reached the shore.

The cook, true to his invariable instincts, had at once flung himself into the submerged portion of the ship, and was busy rescuing such articles as had been stowed therein; at the same time attempting to fit something into the great holes through which the water had rushed. The sailors presently comprehended the situation, and went to his assistance; but all day he was the leading man, handing up buckets of water with surprising agility, and apparently insensible of fatigue or hunger, the one fact that he was thoroughly *wet* being enough to satisfy and make him happy. An examination of the injury showed that there were three holes of considerable dimensions, which could only be stopped by plates of iron, padded with sheets of india-rubber, securely bolted across them. This work occupied the entire day, which was a most disagreeable one to us on account of the clouds of piums that flocked on board and added their torments to our other misfortunes.

The succeeding night was however calm and lovely, and the moon almost full. Down river the view was most majestic, the high land which formed the southern bank of the Solimões stretching away, point beyond point, to the far water horizon. One got a sense of

space and distance in this soft light such as cannot be obtained in the glare of the vertical sun. We sat upon the upper deck in our ship chairs, resting our feet upon the bars of the railing, and chatting about the sorrows of the past twelve hours. Suddenly one of the Chief's slippers fell off and disappeared, but, hoping that it might have caught upon the sponson below, he called to the cook and asked him to look for it. Presently we all heard a loud splash, followed by another at a short interval, and then a third. On looking down to see what it all meant, we found that the cook was diving, rising to the surface, coming on board again through the door of the paddle-boxes; and then recommencing the process by diving once more. He said, in answer to our inquiries, that he was "looking for the Chief's slipper!"—it was not upon the sponson, and he supposed that it must be somewhere at the bottom. Numbers of alligators, as numerous here as at any spot we had visited, were watching his proceedings, and the black water had a very uncanny and uninviting aspect in the moonlight; but these were trifles in connection with his favourite element of which he took no note. It is impossible to say how long he might not have continued his performance, and endangered his life, had he not been peremptorily ordered to desist.

Two or three days later we touched at Teffé, which looked very pleasant, lit up as it was by a burst of morning sunshine of unusual brightness in the dull weather now so prevalent. All the people seemed to have taken advantage of it to come out upon the beach, and wash themselves and their clothes. Letters

were waiting for us at the Judge's house, one of which was of great importance, inasmuch as it involved a considerable alteration of our future plans. It requested us to add the Jutahy, a large tributary between the Jurua and Javary, to the list of rivers to be explored by us, so that our labours were by no means as near their end as we had believed. Now that we had returned thus far down the Solimões, however, it was necessary to go on to Manaos for a renewal of our stores before we could undertake this additional trip.

While we were detained at Teffé, the cook again exhibited his eccentricities for our amusement. He was returning from the town with his arms full of water-melons, and found a difficulty in getting off from the beach to the 'Guajará,' in consequence of both the boats being away fetching wood. Two boys, who had left their clothes at home, and were splashing about in the river, were induced to paddle him across; but, on arriving at the ship's side, it seemed to be a matter of indifference to him whether he stepped upon the gangway ladder or into the water. Accordingly he did the latter, and floundered about for a moment, but managed to save himself without relaxing his hold upon the melons, one of which he immediately handed to the Engineer, who happened to be looking on, asking him to accept it for his monkey Bismarck. The two naked youngsters had now to be paid for their services, and the cook was not the man to neglect this duty. He accordingly handed to each the smallest of Brazilian coins, about half a farthing in value, a sum with which they seemed fully satisfied. It was in fact what our French neighbours call an "embarrass-

ment of riches" to them, for they had no pockets in which to deposit it; and each one, on taking to his paddle, was obliged to place his earnings on the seat by his side.

On the following morning the 'Guajará' stopped off the mouth of Lake Cayambe, and we entered it in one of our montarias. The channel connecting it with the Solimões is small and narrow, but the lake itself is a vast sheet of dark clear water surrounded by high land, and bears a striking resemblance to the widest part of the Mauhes. As we returned, a gull swooped down to the water a little in advance of us and caught a fish, which its companions endeavoured to snatch from it. In the struggle it was dropped, so near to the canoe that we at once picked it up without turning out of our course. There was no trace of a wound of any sort, but the fish, which was large and handsome, was quite dead.

Often when we anchored at night on the Solimões near the bank, we were visited by vast numbers of brown insects about three-quarters of an inch in length, with hard wing-cases. They usually frequented the capinga growing along the shore, or floating in masses on the surface of the river; but left these favourite haunts to swarm into our saloon, attracted by the light of the lamps. Round these they hopped in the liveliest manner, often falling down the chimneys in their eagerness to get close to the flame, which in course of time they usually extinguished. The white tint of the saloon's walls and ceiling pleased them much, and they settled upon them in such quantities as to completely cover the

whole surface. If anyone opened a book for the purpose of reading or writing, they came hopping and dancing upon the white pages, tickling the face of the unfortunate individual until he was compelled to give up the attempt. To get rid of our visitors it was necessary to darken the room at intervals, when they at once rose with a whizzing kind of noise and disappeared through the open windows.

As soon as we had passed Codajas, an active scrubbing and cleaning of the 'Guajará' from stem to stern was commenced—a sufficient token that we were near the end of our voyage, and approaching civilization. The uncompromising manner in which the boatswain set about his part of the duties was the cause of a contretemps of a very laughable nature. The Botanist was descending the steep ladder-like steps leading from the upper to the lower deck, when his foot happened to slip, and he came down upon the deck beneath in a sitting posture. At that moment the boatswain had a pail of water ready, and discharged it with full force right against the middle of our fallen comrade's back. The impetus thus given, combined with that acquired in the descent, shot him along the deck into the saloon beyond, where his sudden and undignified entrance caused much amusement, the Botanist himself leading off the merry laughter. The absurdness of the situation was greatly enhanced by the phlegmatic manner in which the boatswain continued his work as if nothing had happened.

Manaos looked more agreeable and imposing than ever, when, at sunset on the evening of December

22nd, we dropped anchor before it again. Since we had seen it last, we had travelled nearly 5500 miles. Often the days had seemed long, and the way wearisome to us; but now, as we passed it in review, the whole trip appeared as brief as is usually the case with "a tale that is told."

## CHAPTER XXII.

### ON THE JUTAHY, AND BACK TO PARÁ.

Refit our Ship — Christmas Dinner — Our Interpreter resigns his Post — Start for the Jutahy — Morosocas — Enter the Jutahy — Its Tributaries — Native Indian Tribes — Rubber Collectors — Barreiras Alta — Death of the Monkey called "Bismarck" — Description of the Monkey named "Phillipe" — Descend the Jutahy and Solimões — Leave Manaos — Descend the Amazon to Pará — Our Travels terminate — The Botanist leaves for England — The Engineer soon follows — The Chief finally takes his departure — Concluding Remarks.

WHEN we arrived at Manaos we were under orders for the Jutahy river, for which trip we had to refit our ship, take in coal and supplies, and await for a few days the starting of the steamer 'Icamiaba,' by which we were to be towed up as far as the mouth of that river. By this towing process much time and expense would be saved, and a long monotonous journey for our slow-going 'Guajará' got over in a few days.

After the second day succeeding our arrival came that great festival of the year called Christmas, when, in northern climes, all is good cheer and mirth, and roast turkey and plum-pudding are in the ascendant—or more literally in the descendant. It had been our intention to have Christmas dinner on board the 'Guajará'; but two English engineers of the fine steamer 'Marajo' then in port, came to ask us to join with other English-speaking dwellers, or visitors at Manaos, in a dinner on shore, to be partaken of in

a comfortable house lent for the occasion by Herr M——, a German resident. Of course in honour of the day and of our nationality we joined, and the dinner, almost a complete success, came off. We say *almost* a success advisedly, for by some oversight on the part of the executive no bread had been provided; but this was soon remedied by one of our numerous waiters—firemen of the 'Marajo'—rushing off to a baker's shop and bringing in as much as was required. Then the fish was cold, and no wonder, for having been cooked on board that ship, lying a quarter of a mile out in the stream, it had been conveyed on shore by boat, and carried by waiters almost another quarter of a mile on land, to the dinner-table; by which time it had entirely parted with its caloric. Further, there was no turkey—not one existed in the town or even within fifty miles of it. Those we saw at Mucaja on the Mauhes were probably the only members of that family near to Manaos, and most likely the next lot resided in the city of Pará. We therefore could not reasonably be hard on the executive for not having provided a turkey.

Roast beef "à la Amazon," noted for its extreme hardness and power of resisting the process of mastication; veteran fowls—old fellows that had seen many Christmas days come and go; and a roast sucking pig—about the only animal you can trust in that country to retain all the qualities of flavour and tenderness inherited by suckers in other parts of the world, formed our repast: probably the most extensive one of its kind partaken of upon that day in any portion of the Amazon valley.

Amongst our party, which numbered eleven individuals in all, were two Germans and a Brazilian, constituting the foreign element. The last-mentioned, an officer in one of the Company's steamers, commenced to propose toasts and make long speeches at a very early stage of the proceedings, and though not generally listened to he was in no way disconcerted, but went gallantly on. After every speech he left his seat, and advancing to the individual who had the honour to preside at the head of the table, would persist in touching glasses with him and drinking before he sat down again. Brazilians as a rule are afflicted with a mania for speech-making and toast-drinking, and exercise their powers of oratory on every festive occasion, no matter how trivial its nature. Everything, with the trifling exceptions mentioned, passed off well; as well in fact as a Christmas can, where the thermometer stands at 80°, the doors and windows are wide open to the night, and the buzzing sounds of numerous insects plainly heard without, indicate that there is not the faintest similitude between it and the Christmas days of one's youth, when frost and snow, drawn curtains and cheerful fires were the order of the day. The townspeople likewise kept Christmas after their own fashion, by having a masquerade, the members of which we met marching in procession through the principal streets, all clothed in gaudy spangled dresses. Sounds of dance-music proceeded from many houses, showing that the natives were enjoying themselves.

By the 'Marajo,' which sailed for Pará on the following day, went Mr. Cunningham, who, having

become tired of voyaging in the 'Guajará,' and not relishing the idea of another trip up the Solimões, had resigned his post of Interpreter to the Commission.

Some time after, we left Manaos in tow of the 'Icamiaba,' on board of which the President of the province of Amazonas was travelling on an official tour to Tabatinga. The Captain of the 'Icamiaba,' an exceedingly timid man, did not like the risk of towing, small as it was, and by keeping well out from shore in the strong current, lost a good deal of time during the first twenty-four hours of the voyage. Then making out that he would lose five days in the run to Tabatinga, he got the President to authorize him to refuse to tow us farther, after we had only gone some 150 miles from Manaos. We therefore handed him a written protest against this high-handed proceeding, wherein we clearly showed that any loss of time suffered had been entirely through bad seamanship; and then getting up steam continued the journey without further interruption.

Nine days and twenty hours' voyaging, by day and by night, from Manaos brought us to the mouth of the Sappo at the entrance to the Jutahy. The night work on the way was very unpleasant when pounding along against the strong current, close to the semi-submerged tree-stems lining the river's brink, which were at times hardly discernible in the surrounding darkness; and we then remembered with regret the quiet nights spent at anchor on our last trip up the Solimões, when the swash of the river against the paddle-floats was the only sound that broke the stillness of the night. Now there was the beat of the

engine, the pounding of the paddles, and the thoughts of torpedo-like *snags* and *sawyers* to disturb our repose. But, to make up for these disagreeables, there was an immunity from the attacks of those huge mosquitoes of a peculiarly large and venomous kind, called Morosocas, which formerly boarded us when we anchored at night off places where capinga abounded. They were sluggish insects and could easily be killed when seen, but they resorted to the mean dodge of swarming beneath the saloon table, from which vantage ground they drove their long bills into our knees. One was aware of the attack at once, for their bills felt as if they had been recently dipped into some strong acid, and made us jump accordingly. We had to ward off their attacks by wrapping mackintoshes or sheets of newspaper around our legs.

We were furnished at Manaos with a pilot who soon proved to be of little use, for twice in broad daylight he ran the 'Guajará' hard and fast on mud banks, from which she was only extricated after much loss of time.

At the Sappo we filled our ship up with wood, which, in addition to the twenty tons of coal left from the stock taken in at Manaos, we hoped would carry us as far up the river as it was navigable. We there engaged our former acquaintance, Senhor Moreira, to accompany us as pilot, as he knew the river from having often been up it collecting india-rubber.

On the morning of January 19th we entered the mouth of the Jutahy, which we found to be a large black-water river, about one mile wide at its mouth; while the channel leading to it past the Sappo has

only one-half that width. Owing to the height of the river, all its praias were covered, and its banks were low. On our third day up, we traversed a reach some nine miles in length, which, Senhor Moreira said, has only a depth of one and a half fathom in the dry season.

We passed the mouth of the first large tributary on our fifth day, a black-water stream called the Upiah, coming in on the eastern side, and having a width as great as that of the main river itself. Above the junction the water of the Jutahy is turbid, being of a light muddy brown. Four days afterwards, we passed another black water branch, called the Mutum, which is 200 yards in width, and also of equal size to the Jutahy at the junction.

Beyond, as we ascended, the river became more and more turbid and mud-coloured, until at the farthest point we reached, some 450 miles up, it is almost as much discoloured as the Amazon itself. Most of its sediment in suspension must therefore settle as it flows along its winding course with a slow current, till all has subsided in resacas and corners by the time it reaches its junction with the Upiah, when it becomes a true black water-river.

It somewhat resembles the middle part of the Mauhes on a large scale, in that it has resacas and old abandoned portions of river course, in such numbers that we could not have found our way without the aid of a pilot. Besides this, it is like the Purus in having many parana-mirims.

We followed its winding course for ten days, arriving at a part where it was joined by a branch river

called the Coroem. In navigating it, we were very successful, only getting once aground, hard and fast, on a sand bank; a mishap which exercised all the Captain's ingenuity to remedy, but with much laying out of anchors, and heavings thereon, our ship was eventually hauled off.

We fell in with some native Indian tribes in a few places, all of whom were clothed, and either spoke Portuguese or Lingoa Geral. The tribes living low down the river, whose villages we visited, were Marawas and Cataukins, who cut wood for us, which we took in on our downward voyage.

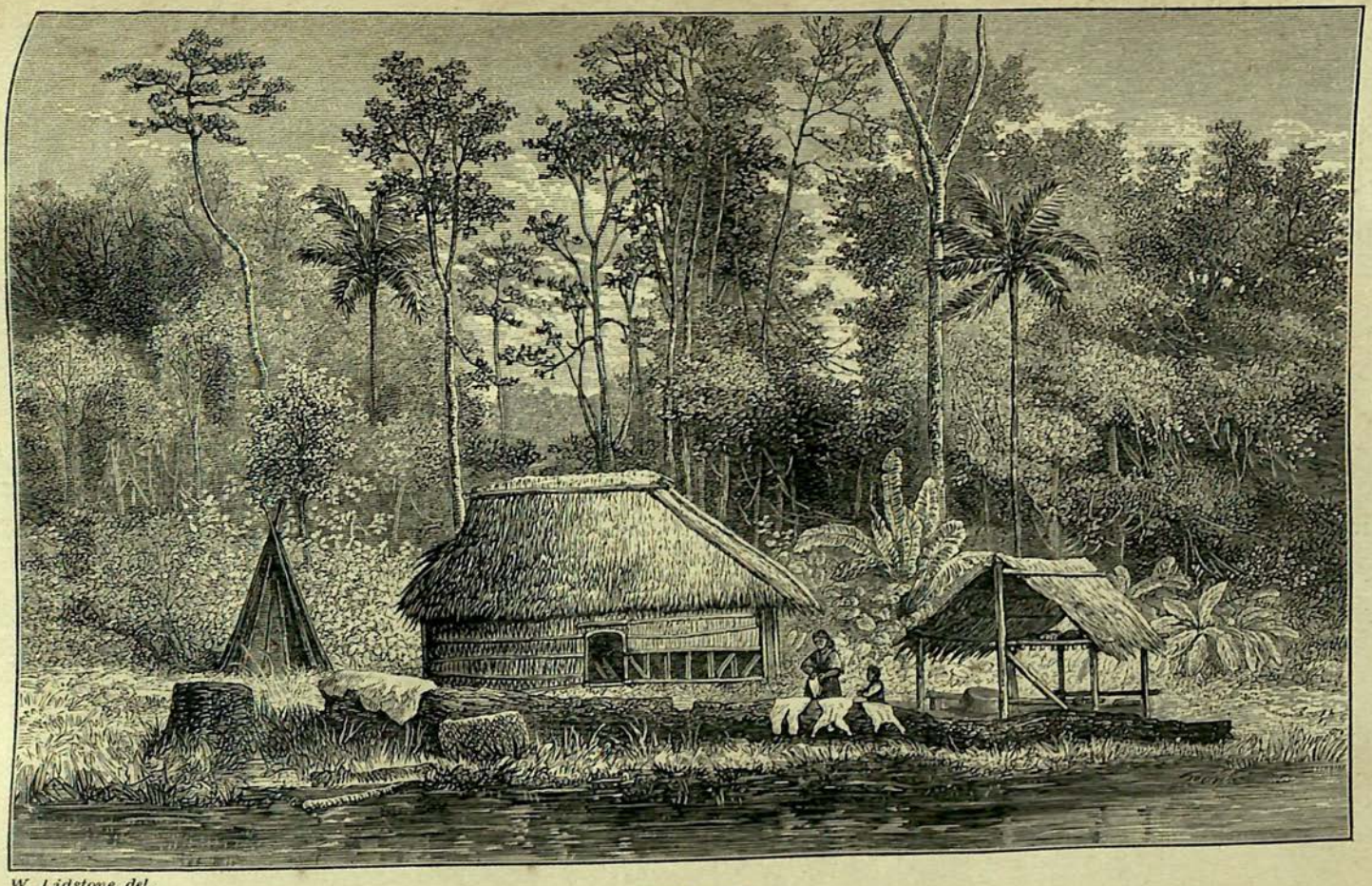
The last lot we fell in with, far up river, were members of the Baua tribe. They told Senhor Moreira, with whom they conversed in Lingoa Geral, that they had been attacked by another tribe called Tecunas, from whom they were fleeing for safety. Some savage tribes live far up, which are respectively named the Periquitos, Tecunas, and Mazarines. They have never interfered as yet with the few rubber collectors who visit the river in the dry season.

Of the latter personages we only saw one family on the river, who resided in a thatched house on Costa Mutum, having determined to remain and brave out the long, dull, rainy season in that desolate watery spot. We give an illustration of this place, in which a small wigwam-like structure may be noticed to the left of the dwelling. This is an almost invariable adjunct to homesteads on the margin of the forest, and is built for the purpose of sheltering the fowls at night from the attacks of insects, vampires, and tiger-cats. The only remnants of the other rubber collectors were

some nineteen similar houses, scattered along the margin of the upper part of the river; but as these were not built upon high land, most of them were at the time in a semi-submerged state.

The barreirases that were seen were generally low, and did not expose good sections of the recent deposit, the greater portion of them being hidden by the height of the water at the time, then within a few feet of its highest point. Barreiras Alta, however, rose to a height of 120 feet, and was composed of white sands above passing into pink sands below to the water's level. In the former were thin layers of white clay, and in the latter were also layers of pink clay. From the top of this high land a fine view of the country to the eastward was obtained, showing the low, level, wooded valley bottom in which the river winds, bounded in the far distance by barreiras land, stretching away to the south, as far as the eye could reach, in an unbroken outline all clothed with dense forest.

Upon the night that we remained, at the termination of our upward journey, a sad accident happened to the monkey named Bismarck, which terminated fatally on the following day. As before mentioned, Bizzy had become deeply attached to the Engineer, who treated him more like a spoilt child than a monkey. When the Engineer was preparing to go into the forest to survey, Bizzy would watch his movements narrowly, and was one of the first to jump into the boat which was to carry the party to the shore. During the time spent in the bush, he occupied himself in running up trees, and catching spiders or other



*W. Lidstone, del.*

COSTA MUTUM.

insects, in which pastime he was a perfect adept; but should he for a moment lose sight of his master, he immediately began to utter heartrending cries of distress. He used frequently to watch his chance when the Engineer was not looking, and slip off to the Chief's cabin, where, out of sheer spite, he committed all sorts of depredations, beginning with biting off the ends of all the drawing pencils, and winding up with scrubbing the deck with a toothbrush; when he was at once chased with a view to capture.

On the evening in question he had been particularly mischievous, and had been chevied considerably all over the ship. Being naturally of a very excitable temperament, this severe hunt seemed to have frightened him rather more than usual, so that he became bewildered, and in making a journey on deck after dark, fell overboard. He swam to the bank, against which the bow of the steamer was resting, and there cried dolefully. His master was on shore, engaged with the Chief in taking star observations, and so for a time there was no one to hasten to his rescue. So heartrending were his cries, however, that a sailor turned out of his hammock, and, passing a pole over the bow, waited till Bizzy clung to it; then, drawing it in, landed the poor half-drowned, shivering creature on board. When the Engineer returned he found his pet in a fit, and did all he could for him, but without any good result, for after a succession of similar attacks he breathed his last.

Whilst on the subject of monkeys, we here give an account of one of the most amusing and vivacious specimens of the tribe that we ever met with, which

happened to be purchased by the Botanist at Coary, on our first visit to that place. It was a Caiarara, of a light drab colour, with a clean but somewhat colourless face, and rejoiced in the name of Phillipe. With the most diabolical expression of countenance—one that in a human being would at once proclaim the murderer—a low knitted forehead and searching eyes, it possessed one of the gentlest natures imaginable, quite devoid of the least spark of spite or revenge. Tease him as you would, and play what tricks you liked upon him, if he did show any heat of temper or ebullition of wrath at the time, all was gone and forgotten in a moment. For tricks and rolicking fun Phil was ever ready, and always up to some mischief or other. He was usually tied to an iron rod over the top of the engine-room, near by poor Bizzy, whom he delighted in teasing; or else during the day on deck. Nothing seemed to be beyond his reach, and he was for ever getting into trouble by tearing out botanical specimens of his master's from between the sheets of brown paper where they were being pressed. The punishment awarded him on these occasions was to have an alligator's skin held out towards him, whose huge wide jaws seemed to terrify him greatly, as it was slowly but surely approached towards him. Skipping from side to side, and holding out his hands to ward off the coming enemy, he groaned out "oh! oh!!" as he vainly endeavoured to escape; until, with a yell of agony, as the thing was pushed rudely against him, he threw both arms over his head, and looked between his legs at the foe, trying to prevent its approach with his prehensile tail. Upon the withdrawal of the alligator's

skin, he uttered a few complaining ohs! rubbed his hands together, and was himself again.

It was customary for one or other of the party to take him into the saloon of an evening, so that he might get a feed of insects which were buzzing round the light. The end of his string was so held that he could not reach the lamp, or else he would soon have dragged it over with delight; and many were the narrow escapes it had too. When bouncing round on the table like an imp, his string was frequently jerked, a proceeding most distasteful to him, for like a flash of lightning he would clear the intervening space, and settle heavily on the offender's head, where he grasped two hand-fuls and two foot-fuls of hair, which he tugged at merrily.

Sometimes he got loose and disappeared so noiselessly that no one missed him, until on hearing a chuckle of delight, he would be seen emerging from the store-room in the after-hold, running on his hind legs with an egg, or some other dainty article of food, in either hand. Eggs could never be got from him when once in his grasp, for when cornered, and he knew he could retain them no longer, he cunningly broke them on the deck, as much as to say, "If I am not to have them, you shan't." He seemed to enjoy being pelted with seeds, skipping about and avoiding them with great agility, but yelling like mad if hit, and the next moment dodging about to court another pelting. When sitting on the lap of a person smoking, he screwed up his face and worked himself about in the smoke, rubbing it into his fur with both hands, showing every token of intense delight, coughing and

spluttering till water ran from the corners of his mouth. To stop him, the person smoking would take his tail, and bring it slowly into contact with the hot end of the cigar—a process which Phil ever watched with a puzzled expression of countenance, as much as to say, "I wonder what he is going to do now." As he felt the pain of the burn he yelled boisterously, and dragged away his tail; but as soon as it had subsided, he quietly and earnestly submitted to the same process again—a process which soon denuded every particle of hair from the tip of that appendage.

When loose he never entered cabins or touched private property, all his energies being devoted to emptying the store-room of tit-bits, or catching cock-roaches and spiders therein.

Fowls and pigs he was not afraid of, running after and pulling the tails of any on board; but from cattle and goats he had an especial aversion, one that even amounted to dread. He was provided with a little swinging hammock in which he usually slept, but in which he only rested the greater part of the night when cattle were on board, leaning on one elbow like a human being, to see that those terrible cows were not coming after him. It amused us on those occasions to watch him, unawares, lean on his elbow, and peep cautiously round towards the bow to see what possible plots his supposed enemies were hatching against him. Then as he came to the conclusion in his mind that it was all nonsense to be afraid, as they would not hurt him, he would turn round to settle himself to sleep; but the moment his back was towards them, he again doubted their pacific

intentions, and was obliged to take another peep. This probably went on till the poor fellow got worn out and fell asleep. He had a decided aversion from water, and kicked up an awful row when plunged into the river for a bath every evening. He was never more in need of a good wash than on occasions of our taking in coal, when he got himself in such a filthy state, by tossing about the lumps and rubbing himself with the dust that he more nearly resembled a chimney sweep than a monkey.

Almost a volume might be written about Senhor Phil, his tricks and teasings, and his subsequent doings at Pará.

After a day spent in cutting wood near the Coroem, during which we were fearfully tormented by piums, we commenced our return journey, and in due course arrived once more upon the Solimões. There our pilot, Senhor Moreira, left us at his home, and we ran on to the Barreiras of Jutahy, where we took in a supply of wood from a Peruvian. We were much struck with the appearance of two old Miranha Indian men, belonging to the Peruvian, who passed wood on board, and who were ridiculously alike. They were a most curious pair, their faces being devoid of expression of any kind whatever, having a general washed-out look. They worked steadily and well, but in a mechanical way, throwing no life into the matter.

We left Jutahy Barreiras on Saturday, February 6th, and arrived at Manaos on the following Wednesday, at four o'clock in the morning. On our way down we wooded at the mouth of Guara lake, where we shipped the coloured Englishman, named Gasco, whom we

had met up the Jurua, in the place of Macario, who was to land next day at João da Cunhá's. At Manaos all was made snug, and coal taken on board for our run down to Pará; when, after bidding adieu to our good friend Captain Bloem, the President, and Senhor Guimarães, we hoisted anchor, and quitted the dark waters of the beautiful Negro for ever. The faint glimmer of dawn was just beginning to assert itself; the cocks over the length and breadth of the sleeping city were heralding the coming morn; stray dogs were giving the finishing touches to their night's howling; and a few early risers were yawning on their doorsteps, as the 'Guajará's' paddles beat the black water into foam and propelled her rapidly away. The Commission, standing in a little group on the awning deck, took their last look of the dim outlines of the city wrapped in gloomy twilight, enjoying the while the cool refreshing morning air; and, with a faint shade of regret, such as always tinges pleasant thoughts of the past, turned their gaze eastward ho. Luck be with thee always, old Manaos, and may you prosper in proportion as we wish you well—then will you become a queen amongst the cities of the great South American continent!

Gaining the turbid strong-flowing Amazon, the 'Guajará' hastened her pace, and spun along merrily in the "roaring-forties." Passing dark-looking logs, and large grass islands, we ran on all day, and by evening reached Serpa. Having some inquiries to make of an official of the place, we remained there all Sunday, but left at three o'clock on the following morning. When ready to start it was found that the cook—that

curious character before described—was not on board, and as, on the steam whistle being blown repeatedly, he did not turn up, we left without him, Gasco being put in his place. We never learnt the cause of his detention, but he subsequently sent a note to Captain Hoepfner at Pará asking him to forward his kit to Manaos, and present his two pets, a labba and a parrot, to the Chief of the Commission, thus exhibiting to the last the eccentricities of his character. Unfortunately both had disappeared, the labba by drowning and the parrot by flight.

We passed Villa Bella at night, and got to Obidos on the following morning, where we stopped to take in wood. There we bade adieu to Senhor Mirelles, and took a look at our old quarters. Then we steamed on to Santarem, at which place we remained one day, having the pleasure of meeting our good friend Dr. S—— once more; after which we continued our journey, and in passing Prainha in the afternoon were permitted to take our last view of that spot, which will ever be famous in the annals of the Commission.

Between Villa Bella and Obidos we had encountered dirty weather, consisting of strong breezes and pertinacious rains, which accompanied us for the greater portion of our voyage to Pará. After passing Prainha, however, and getting into a wide reach, the wind, which was directly in our teeth, amounted in force to half a gale, causing the surface of the river to become exceedingly rough, and producing such ocean-like waves that the 'Guajará' began to pitch merrily. Things became at last so uncomfortable on board, that we made for the shelter of Juaupary island, where we anchored in a

little parana-mirim. The temperature became very low for this part of the world, the thermometer in our saloon registering only 74° Fah. Next morning, in passing, we visited the old village of Almerim, a small semi-deserted place. After a few hours' stay, during which we went inland to the mountain, we continued our journey, and reached that enormous expanse of the Amazon from which two diverging courses lie open to the ocean; one leading to the heads of the network of channels above Breves, the highway to Pará; and the other, on the left, leading down the main Amazon, past the town of Macapa. There we had to steam a distance of some twenty miles in the teeth of a strong breeze, which, blowing against the current, produced large waves, causing the 'Guajará' to pitch and roll so, that during a great portion of the night we were unable to sleep in our hammocks, owing to the manner in which they swung about, banging frequently against opposing substances, such as cabin walls and stanchions. After passing Gurupa, we steamed down narrow channels well sheltered from the wind, and on the following evening arrived at Breves, where we wooded.

On Sunday, the 21st of February, we crossed the extensive bay of Marajo, and, passing through the Carnepijo channel into the Pará estuary, finally arrived at our destination—the City of Pará—off which we anchored for the night. Next day we landed, and bade adieu to the old 'Guajará' for ever, transferring our quarters to a house in the possession of Captain Pomroy, an official of the Company, in the suburb of Pará at Largo S. João.

The travels of the Commission here terminated, and with them the labours of the Botanist, who awaited the arrival of the steamer 'Maranhense,' in which he subsequently started on his homeward voyage to Liverpool, on March 11th.

The Engineer had unfortunately been attacked some time previously with a most singular disease, which being a painless one, and coming on so gradually, was not noticed, until it by degrees rendered him almost helpless. It first began to manifest itself before we left Manaos on our trip to the Jutahy, but its progress was so slow, that it was not until we were returning from that river that it became noticeable, and alarmed us all. Its chief effect was to take away the motive power of the extremities. The principal doctor of Pará was consulted, and he pronounced it to be a case of Beri-beri, a disease peculiar to tropical climes, advising the Engineer to leave the country at once, and go home, assuring him that in that way only could he regain his health. He therefore took passage in the 'Jerome,' and left Pará on the 2nd of March for England by way of Maranham and Ceara, the longer sea voyage being strongly recommended. Though thus cast for a period of six weeks entirely amongst strangers, he experienced so much help and care, that he felt it to be almost worth while to be reduced, for once, to a log-like condition, in order to know the essential kindliness of this often maligned world; and he here takes the opportunity of expressing his indebtedness, especially to Captain Hutchinson of the 'Jerome' for his unremitting attention; to the other officers of the good ship; and to Senhor Jerome

Travares, United States Consul at Maranham, for the way in which he enabled him, at considerable personal trouble and expense, to see the whole of that beautiful city.

The Chief, now the sole representative of the Commission, remained in Pará for two months and a half, to complete the office work resulting from our labours in the field; and on the 5th of May, 1875, he likewise sailed on his homeward voyage.

A singular interest attaches to tropical lands, such as those we have attempted to describe, where nature, little interfered with, displays so much luxuriance and such an almost infinite variety of animal and vegetable life. Additional impressiveness is imparted when, as was the case here, some great natural wonder, passing through the entire region, gives dignity and unity to the whole, and helps to fix it indelibly upon the memory. The Amazon is without doubt the world's mightiest river, far beyond all rivalry, and it flows through the world's grandest and most extensive forest. It must have been already made clear to our readers that much of this attractive country is perfectly accessible, and may be easily and enjoyably visited by anyone who, tired of narrower tourist routes, desires to make himself acquainted with its marvels. The traveller who thus partially follows our footsteps will probably return, like us, with his memory stored with cherished pictures of vast reaches of tawny water flowing onward, from horizon to horizon, between lines of forest, under a vertical sun; of mighty tributaries, winding with the sinuosities of a serpent or spreading out lake-like, all pouring their variously

tinted contributions into the giant river; of wide distances seen under bright but mellow moonlight; of shadowy and mysterious forest glades; of wooded islands and quiet lakes; of singular and unfamiliar animals, trees, insects, and flowers; of dusky races, and human life under the simplest and most unsophisticated conditions; and of all those other interesting features, faintly portrayed upon our pages, which help to make up the undeniable charm of the Amazon valley.

# INDEX.


Abacaxis channel, 318.
—— river, 322.
—— village, 321.
Abowucoo lake, 291.
Aguadua lake, 292.
Alenquorns, 54.
Alligators, 100, 279, 457, 492.
Alluvium, 97, 326, 449.
Alta barreiras, 504.
Alter do Chão hill, 140, 150.
—— village, 140, 161, 245.
Amazonian craft, 144.
Anavilana island, 360, 362.
Ant-eater, 73.
Antonio lake, 350.
Ants, 76, 143, 145, 209.
Aramanahy, 144, 179.
Arapecu lake, 228.
Araras barreiras, 467.
—— Indians, 346.
—— island, 332.
Aruan channel, 387.
Atter, 155.
Autaz island, 357.
Aveiros, 248.
Ayaya river, 264.
Ayrão, 361, 386.

Bacaba drink, 134.
—— nuts, 133.
Barcellos, 371, 379.
Barrazinha, 255.
Barreirases, 450.
Barreiras of Monte Alegré, 129.
Barrigudo monkey, 481.
—— palms, 458.
Batelõe, 302.
Bathing, 20, 120, 201.
Baua Indians, 503.
Bees, 76, 165.
'Beija Flor,' 220.
Beri-beri disease, 514.
Berury, 445.
Birds, 55, 91, 265, 351, 352, 445.
Blow-tubes, 486.
Boim, 260.
Bolivians, 349.
Borba, 328, 329.
Braganza, 2.
Breves, 14.
Butterflies, 7, 333.

Cabuquem, 374.
Caburie, 368.
Cachaça, 252, 307.
Cacoals, 22, 97, 268.
Cafuzos, 8.
Cajetuba, 174, 179.
Calabash, 132.
Camarão, 316.
Campos, 378.
Canamá, 483.
Canoe making, 213.
Canumá channel, 325, 357.
Capaca praia, 457.
Caparanga river, 131.
Capella, 298.
Capinga, 110.
Caracajas, 315, 367.
Cararaucu, 297.
Carnepijo channel, 513.
Carvoeira, 366.
Cascades, 407.
Castanhas, 228.
Castanheiros, 229.
Cataracts, 235, 254.
Cataukin Indians, 468, 471, 503.
Caterpillars, 415.
Cayambe lake, 494.
Caypuru lake, 213.
Cecropias, 374, 482.
Centipedes, 202, 354.
Chinaman, 362.
Christmas, 497.
Coary, 450.
Codajas, 450.
Collision, 384.
Colonia, the, 205.
Coroem river, 503.
Costa Mutum, 503.
Costumes, 9, 83.
Crato, 337.
Cubertas, 371, 439.
Cuminá, 228.

Cunury hills, 241.
Curupira lake, 227.
Cururu point, 140, 151, 160, 182, 245.

Dances, 142, 278, 315, 330, 367
Diorite, 42
Dirt eaters, 464.
Dogs, 88, 101, 130.
Drunkenness, 260, 262, 457.
Dwelling-house, 18.
Dykes, 43.

Eagle, 169.
Ereré mountain, 37.
—— river, 50.
—— village, 30, 36.
Esaltaçion, 333.

Fandanga, 142, 315.
Faro, 286.
—— lake, 286.
Fasenda, 95.
Feather-work, 394.
Ferns, 444.
Fevers, 85, 123, 348, 380.
Filed teeth, 356.
Fish, 52, 103, 258, 430, 494.
Fishing, 420, 430.
Flowers, 98.
Fonte Bôa, 469
Food, 23, 116, 117, 321, 381, 498.
Forest, 73.
Formiga do Fogo, 34, 143, 175.
Forts, 195.
Fossils, 47, 257.
Frog-hoppers, 494.
Fruit, 275, 321.
—— trees, 102.

Gavião Barreiras, 466.
Geology, 42, 43, 85, 237, 256, 311, 352, 387, 445, 477, 488.
Gneiss, 352.
Goatsuckers, 352.
Granite, 353, 362, 375, 377, 378, 387.
'Guajará,' the, 422.
Guarana, 307.
Guaranazal, 306.
Guianaria, 375.
Gulls, 209, 462, 489.
Gurupa, 16.
Gurupatuba, 24, 48, 50.

Horses, 33, 29.
Houses, 18, 114, 119, 155, 194, 474.
Howling monkeys, 100, 192.
Humayta, 338, 353.
Hyanuary lake, 419.

Ichneumon flies, 460.
Igapo, 271, 323.
Igaripé, 408.
Improvidence, 102.
Indian pottery, 472.
—— picture-writing, 217, 362.
—— raids, 363, 364.
Indians, 8.
India-rubber, 438.
—— collecting, 436, 463.
—— manufacturing, 437.
Ipadu, 472.
Iripixy, 208, 210.
Ita palm, 356.
Itaituba, 252.
—— narrows, 441.
Itapauma, 247.
Itukie channel, 127.

Jacaré river, 45.
Jaguarary bay, 147.
Jaguars, 240, 430.
Jamaraqua, 174.
Jamary river, 348.
Jamundá river, 284.
Jauari river 87.
Jaupiri Indians, 363.
Javary river, 479.
Jiggers, 147, 308.
João da Cunha's, 456.
Jukiri lake, 231.
Jurua river, 458.
Juruapuca, 459.
Jurucuic, 143, 162.
Juruty lake, 269, 273.
—— river, 269.
Jutahy river, 501.

King vultures, 38.

Labba, 150.
Landslip, 429.
Laranjal, 309.
Laulau, 258.
Leopoldinia, 375.
Leprosy, 229.
Levremont, 31.
Limestone, 47, 256, 311, 387, 488.
Lingoa geral, 485.
Lizards, 4, 91.

Mabadiri, 439.
Macapa, 11.
Madeira railway, 343.
—— river, 327.
Magnificent trees, 146.
Manaca-arca channel, 369.
Manacaparu lake, 424.

Manaos, 358, 387, 391, 495, 511.
Mandioca, 258, 481.
Manicoré, 334, 354.
Maracana lake, 285.
Marajo, bay of, 14.
Maranhao river, 475.
Maranhaozinho cataract, 254.
Marapatá, 408.
Marawa Indians, 503.
Mari-mari lake, 466.
Marmellos river, 351.
Marmozets, 481, 486, 488.
Marriage ceremony, 121, 122.
Matamata, 461.
—— turtle, 378.
Mauhes, 305.
—— river, 308.
Mauritia, 375.
Maxira pass, 32, 35.
Mayflies, 325.
Mirage, 59, 139, 489.
Miranha Indians, 451, 471.
Mocambo channel, 297.
Monguba trees, 112.
Monkey-pot trees, 210.
Monkeys, 73, 447, 479, 481, 505.
Monte Alegré, 20.
—— —— lake, 32.
Moradores, 448.
Morosocas, 501.
Mosquitoes, 46, 75, 272, 336, 411.
Motuca, 409.
—— grande, 409.
Mucaja village, 308.
Mundurucu Indians, 308, 312, 319.
—— raids, 319.
Mura Indians, 350.
Mutum river, 502.

National Guard, 113.
Navvies, 345.
Negroes, 89, 233.
New palms, 215, 239, 484.
Night monkey, 382.

Obidos, 193, 512.
Oleo do Tartaruga, 452.
Onça, 32.
Orinooco geese, 461.

Padawiry, 378.
Paisaja, 29, 40.
Pamary Indians, 433, 434.
Pao-mulattos, 351.
Pará, 3, 11, 513.
—— river, 2.
Parana-mirims, 268.
Parawacu igaripé, 226.
Pareka river, 308.
Parentins hill, 270.
Parentintin Indians, 340, 346.
Paruaquara river, 94.
Pedreira, 362.
Peixe-boi, 175, 395.
Piassaba, 374, 379.
Pignel, 259.
Pigs, 253.
Pirara, 366.
Pirarucu, 23, 258, 457.
Piririca, 226, 481.
Pium, 254, 435, 460.
Porpoises, 50, 172.
Porto Alegré, 19.
—— do Moz, 16.
Prainha, 17, 58.
Prias, 428.
Pupunha 464.
—— palm, 309.
Pupunhazinha, 466.
Puru-purus disease, 433.
Purus river, 426.
Pytoona Forno, 39.
—— river, 34, 51.

Rafts, 374.
Rains, 201.
Ramos channel, 304.
Recent deposit, 43, 131, 195, 311, 352, 445, 450, 488, 504.
Red cedar, 351.
Resacas, 309.
Rio Branco, 365.
—— Negro, 358, 362.
Rita barreiras, 475.
Rubber merchants, 438.

Saccados, 446.
St. Antonio, 341.
St. Antonio Bôa Ventura, 486.
St. Isabel, 375.
St. Paulo, 473.
St. Sebastian, 483.
Salempanter, 91.
Salinas, 2.
Samauma settlement, 143, 169.
Sandstone, 39, 42, 43, 47, 256, 311, 387.
Santa Anna, 127.
Santarem, 111, 512.
Sappo river, 471, 490, 500.
Sapukia lake, 241.
—— tree, 241.
Sapukia-oroka, 331.
Saübas, 145.
Saudosa, 45, 48.
Scissor-bills, 462.

Scorpion, 413.
Serpa, 300.
—— lake, 302.
Serra Escama, 217.
Shale, 42.
Silk-cotton tree, 444.
Silves channel, 298.
Sites of ancient villages, 258, 271.
Snags and sawyers, 501.
Snakes, 66, 74, 374.
Solimões, 358, 448, 471, 489.
—— valley, 449.
Spiders, 144, 289.
Steamers, 12.
Stinking pheasants, 91.
Sugar-cane, 153, 258, 490.
Supplies, 463.
Syenite, 353.

Tabatinga, 475.
Tabocal, 356.
Tajuré mountain, 45, 46.
Tambaki, 420.
Tapajem lake, 232.
Tapir, 394.
Tapuraquara rapids, 376.
Tapuyus, 89, 121.
Taquahy, 482, 488.
Taruma, 386, 407.
Tattooings, 255, 310, 321.
Tauapasse-assu, 386.
Tecuna Indians, 503.
Teffé, 453, 492.
—— river, 452.
Termites, 123.
Terras pretas, 271.
Tertiary deposits, 477, 488.
Thomar, 374.
Thrushes, 325.
Ticks, 77.
Timbo, 247.
Toads, 132, 416.
Tobacco, 102.
Tocantins, 14.
Tomboueirá, 386.
Tonantins, 472.
Townspeople, 115.
Tree ferns, 274.
Tres Casas, 336.
Trombetas river, 224.
Tropical storms, 146, 172.
Trovadoré, 251.
Trovoado, 170, 260.
Turtle eggs, 430.
Turtles, 339, 350, 431, 432, 466.

Uaripuana river, 355.
Uatima river, 299.
Upiah river, 502.
Uricurituba, 250.
Uruara river, 100.
Urubu caxoeira, 465.
Urubus, 10, 198, 457.
Uruçaca, 464.

Vermelha barreiras, 468.
Victoria Regia, 52, 271.
Villa Bella, 279, 293.

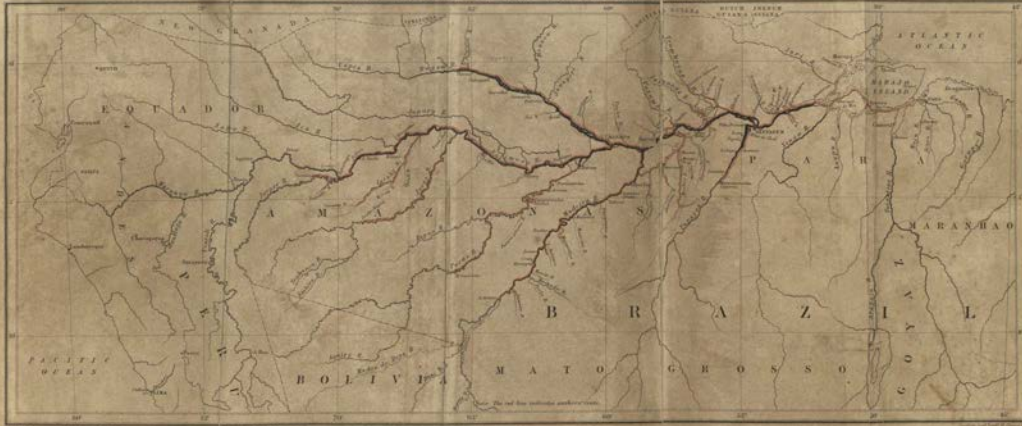
Wasps, 38, 61, 75, 94, 106, 211, 376.
Water dog, 91.
Water-fall, 403.
Whirlpools, 283.
Willows, 459.
Worm, 416.
—— tubes, 416.

Xingu, 16.

Zeringa trees, 352, 436.

LONDON: PRINTED BY EDWARD STANFORD, 55, CHARING CROSS, S.W.

# MAP OF THE RIVER AMAZON AND ITS TRIBUTARIES.


NEW GRANADA
EQUADOR
PERU
BOLIVIA
BRAZIL
AMAZONAS
PARA
MARANHAO
MATO GROSSO
GOYAZ
ATLANTIC OCEAN
PACIFIC OCEAN
DUTCH GUIANA
FRENCH GUIANA
Quito
Cuenca
Loxa
Jaen
Tumbez
Guayaquil
Chachapoyas
Moyobamba
Tarma
Lima
Cuzco
Puno
Arequipa
Truxillo
Caxamarca
Huanuco
Pasco
Jauja
Ayacucho
Huancavelica
Chuquisaca
Potosi
Oruro
La Paz
Cochabamba
Santa Cruz
Tarija
Chiquitos
Moxos
Para
Belem
Macapa
Santarem
Obidos
Manaos
Barra do Rio Negro
Ega
Tabatinga
Loreto
Nauta
Borja
Tomependa
Sarayacu
Pebas
Tunguragua
Napo
Putumayo
Iça
Japura
Rio Negro
Rio Branco
Madeira
Tapajos
Xingu
Tocantins
Rio Grande
Rio Pardo
Rio Mamore
Rio Beni
Rio Madre de Dios
Rio Ucayale
Rio Huallaga
Rio Marañon
Rio Pastaza
Rio Morona
Rio Tigre
Rio Pachitea
Rio Ucayali
Rio Purus
Rio Jurua
Rio Solimoens
Rio Amazonas
Rio Tocantins
Rio Xingu
Rio Tapajos
Rio Madeira
Rio Negro
Rio Branco
Rio Japura
Rio Iça
Rio Putumayo
Rio Napo
Rio Tunguragua
Rio Pastaza
Rio Morona
Rio Tigre
Rio Pachitea
Rio Ucayali
Rio Huallaga
Rio Marañon
Rio Mamore
Rio Beni
Rio Madre de Dios
Rio Grande
Rio Pardo

00083661

Digitized with financial assistance from the
Government of Maharashtra
on 18 July, 2018